Town of Groton 173 Main Street Groton, MA 01450

New England Craft Cultivators d/b/a Tree House Craft Cannabis 113 George Street Boston, MA 02119

To: Town of Groton Planning Board
From: New England Craft Cultivators, LLC
d.b.a Tree House Craft Cannabis

Date: January 24, 2023

Re: Application for Major Site Plan Review & Accompanying Special Permit Application to open a cannabis retail dispensary at 1 Forge Village Road in Groton, MA.

Dear Groton Planning Board:

Consistent with sections 218-10.4(D)(2) and 218-2.5 of the Town of Groton Zoning Bylaws, New England Craft Cultivators is seeking Major Site Plan approval to open a cannabis dispensary at 1 Forge Village Road in Groton.

New England Craft Cultivators has worked with Ci Designs Inc. to prepare a comprehensive existing conditions plan [Addendum 1]. We have also prepared here an internal demolition plan and construction plan that represents all the changes we plan to make to the existing space [Addendum 2].

New England Craft Cultivators is seeking to use an existing commercial space that is currently vacant and is not seeking to make any alterations to the parking, gross floor area, structure, topography, landscaping, traffic patterns or other external areas that are typically considered in major site plan review applications. Accordingly, we are seeking to include two sets of previously approved plans (see description below and attached plans) to satisfy some of the requirements under sections 218-2.5(C) and (G). We are requesting waivers for all of the additional requirements under said sections due to our unusually simple circumstances.

We have included copies of the plans that were approved by the Groton Planning Board in 2005 [Addendum 3] and as modified by the Board in 2007 [Addendum 4] as they were prepared by GPR Engineering Solutions for the property (previously known as 785 Boston Road). New England Craft Cultivators is leasing the unit identified in these drawings identified as "First Floor Lease Area." These plans accurately represent the parking spaces available to us (18) directly in the lot by our entrance plus (64) additionally available on the property.

We are incredibly excited to bring this application as well as our accompanying Special Permit application before you and look forward to becoming part of the fabric of the community in Groton.

Sincerely,

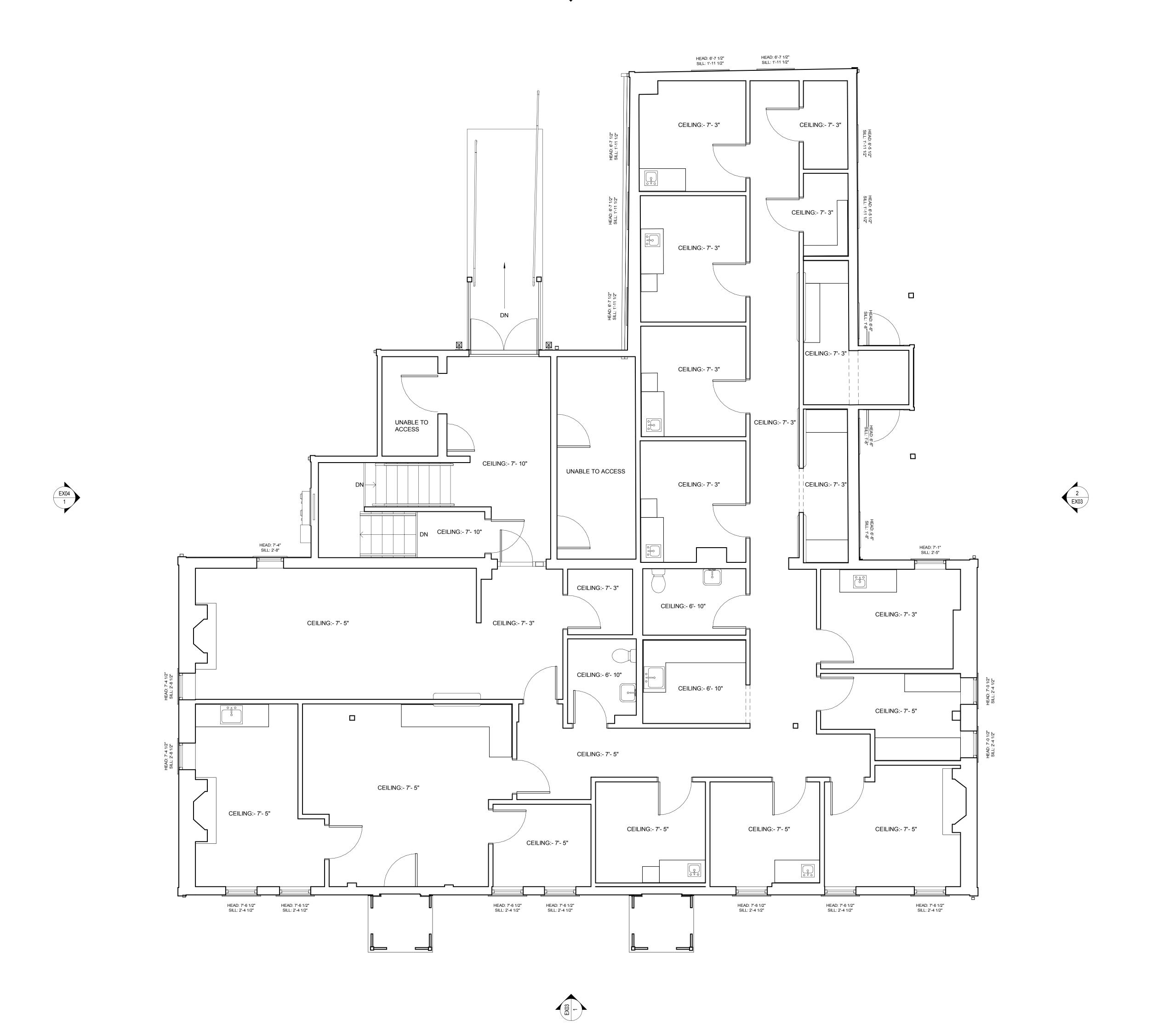
Wes Ritchie & Ture Turnbull

New England Craft Cultivators, LLC

d.b.a Tree House Craft Cannabis







Forge Village Rd

1 Forge Village Road Groton, MA

# EXISTING CONDITIONS

Call us at: (617) 247 9161 info@existingconditions.com www.existingconditions.com

The Most Accurate Existing Conditions Surveys and As-Built Surveys<sup>™</sup>

All projects are measured using the most advanced laser measuring equipment and our best standards and practices. All work will be field verified by client prior to design or construction or other use.

# General Notes:

- 1. It is expressly understood by client that ECS is not an architectural or engineering entity. None of the documents prepared by ECS for client shall have any stamping or certification of such trade professionals.

  2. This is not a structural or MEP analysis or due diligence model. Visible and accessible elements are modeled for location and size. Further structural or MEP analysis could be necessary by others.

  3. STANDARD OF PRACTICE. Services performed by ECS under this Agreement will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. No other representation, expressed or implied, and no warranty or guarantee is included or intended in this Agreement, or in any report, opinion, document or otherwise. Client shall field verify all work prior to design construction, or other use.

  4. These drawings are for the intended purposes listed in the scope of work at the time of survey and should not be used for any other reasons. See scope of work provided to client for further information.

# Laser Scanning Notes:

- 1. Visit FARO.com and leica-geosystems.com for 3D laser scanner tolerances, range information and product specifications.
  2. Laser scanning equipment uses light waves to measure distances, unforeseen site conditions such as dust, moisture, vibration, surface reflectivity, lighting conditions, temperature, humidity, ferromagnetic materials, building configuration etc. may impact registration between scan locations.
  3. Accuracy over long distances can be improved if the client provides survey benchmarks prior to scanning in order to reference the laser scan data into a coordinate system.
  4. The Revit file contains the most complete alignment of point cloud data. All laser scanning by default is in a localized coordinate system. Laser scans completed on multiple days may be tied into previous laser scans by use of site specific features and targets. Point cloud adjustments are made in Revit for a final verification.

Project Number: 10781812910

Existing Level 1 Floor Plan

EX01

Gross Area Schedule Area 3,639 SF 0 SF 3,639 SF Not Placed

8" / 1'-0" 8" / 1'-0" \_\_\_\_8" / 1'-0"\_\_\_

Forge Village Rd

1 Forge Village Road Groton, MA

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Project Number: 10781812910

Existing Roof Plan

Date: 1/4/2023

EX02 Drawn By: EC



Southeast Elevation REF DRAWING:1 / EX01 SCALE: 1/4" = 1'-0"



Southwest Elevation
REF DRAWING:1 / EX01 SCALE: 1/4" = 1'-0"

Forge Village Rd

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Project Number: 10781812910

Existing Exterior Elevations

EX03



Northeast Elevation REF DRAWING:1 / EX01 SCALE: 1/4" = 1'-0"



Northwest Elevation
REF DRAWING:1 / EX01 SCALE: 1/4" = 1'-0"

Forge Village Rd

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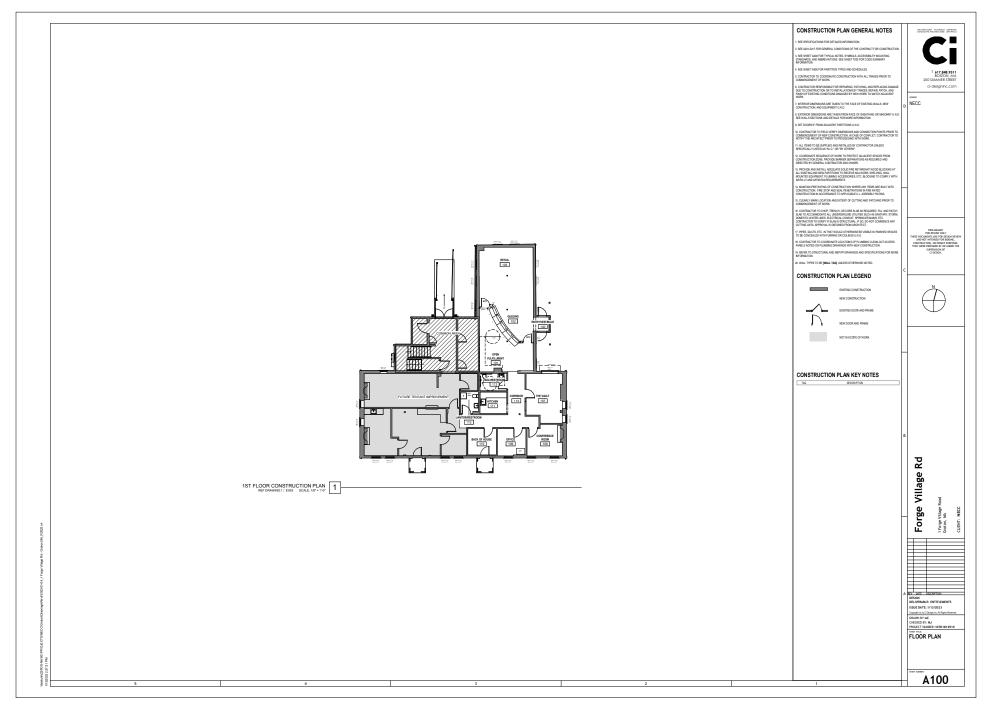
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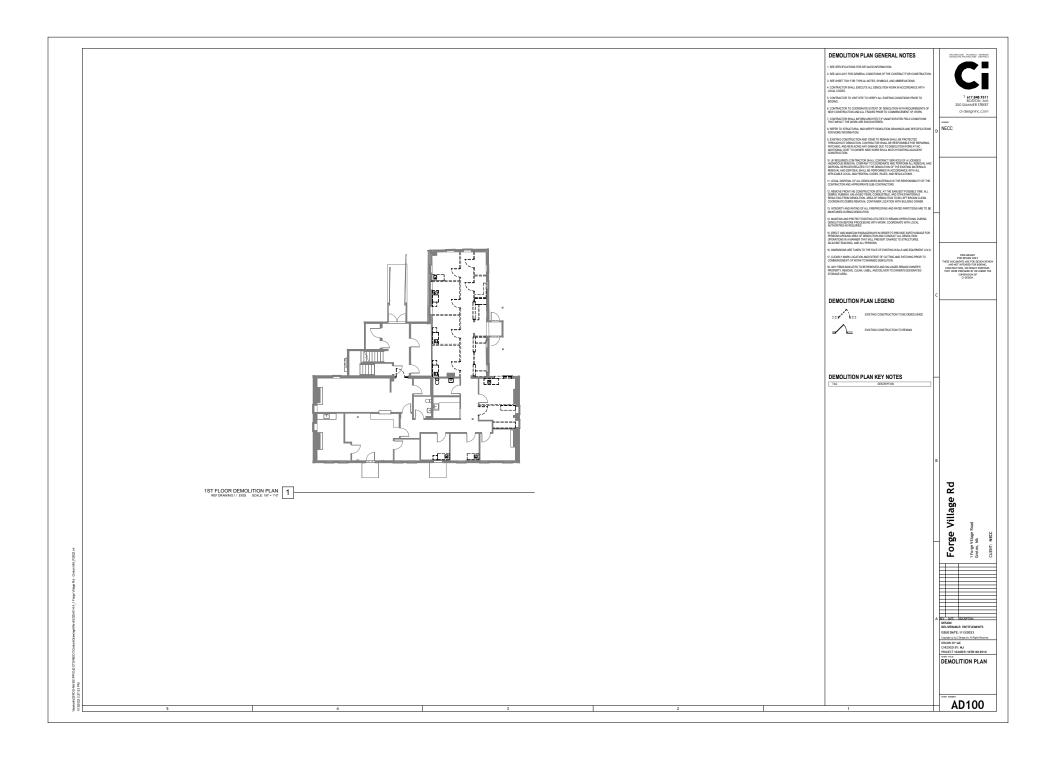
Project Number: 10781812910

Existing Exterior Elevations

EX04 Drawn By: EC

# Addendum #2





### SHEET INDEX

C1.1 TITLE SHEET

C2.1 EXISTING CONDITIONS PLAN

C3.1 SITE LAYOUT, TRAFFIC PATTERN, AND UTILITIES

C4.1 GRADING AND DRAINAGE PLAN

C5.1 STORMWATER POLLUTION PREVENTION PLAN C6.1 CONSTRUCTION DETAILS

C6.2 CONSTRUCTION DETAILS

C6.3 CONSTRUCTION DETAILS

AS.101 LANDSCAPE PLAN COOPER LIGHTING PHOTOMETRIC PLAN

# SITE DATA

LOT AREA:

1.71± AC. (74,282 SF)

WATER SUPPLY: ON-SITE WELL (PROP. MUNICIPAL) **SEWAGE DISPOSAL: ON-SITE SEWAGE DISPOSAL SYSTEM** 

**ZONING DISTRICT: BUSINESS B-1** 

**OVERLAY DISTRICT:** DEP DISTRICT: NON-COMMUNITY IWPA HAS BEEN REMOVED

# SPECIAL PERMIT

CHAPTER 218 SECTION 218-30, WATER RESOURCE PROTECTION OVERLAY DISTRICTS

WATER RESOURCE PROTECTION DISTRICT III (WRPD III)

218-30.E.2 PRINCIPAL USES (k): ANY BUILDING, STRUCTURE OR USE, EXCEPT SINGLE FAMILY DWELLING, TO BE SERVED BY ON-SITE WASTEWATER DISPOSAL SYSTEM WITH A DESIGN CAPACITY OF GREATER THAN 10,000 GALLONS PER DAY OR DESIGN CAPACITY OF 110 GALLONS PER DAY OF WASTEWATER PER 10,000 SQ. FT. OF LOT AREA AS REQUIRED BY 310 CMR 15,00

218-30.E.2 ACCESSORY USES (a): UNDERGROUND STORAGE OF HAZARDOUS MATERIALS, INCLUDING OIL AND GASOLINE IN A WRPD III. 218-30.E.2ACCESSORY USES (b): ABOVEGROUND STORAGE OF HAZARDOUS MATERIALS IN QUANTITIES GREATER THAN ASSOCIATED WITH NORMAL HOUSEHOLD USE, OTHERTHAN FUEL OIL FOR RESIDENTIAL HEATING PURPOSES IN A WRPD III.

# PLAN REFERENCES

- . "COUNTY LAYOUT FOR ROUTE 225" DATED: 1925.
- 2. "WATER RESOURCE PROTECTION DISTRICT MAP, MASS GIS 2002" FOR THE TOWN OF GROTON, MA
- 3. "SUBSURFACE SEWAGE DISPOSAL SYSTEM, NEW CONSTRUCTION, CONSTRUCTION RECORD DRAWING" 785 BOSTON ROAD, GROTON, MA. PREPARED FOR SAMANTHA'S REALTY TRUST LLC, BY GOLDSMITH, PREST AND RINGWALL, INC. DATED JANUARY 2005, REVISED THROUGH 01/27/05, JOB NO. 03214

4. "SUBSURFACE SEWAGE DISPOSAL SYSTEM, NEW CONSTRUCTION" 785 BOSTON ROAD, GROTON, MA. PREPARED FOR SAMANTHA'S REALTY TRUST LLC, BY GOLDSMITH, PREST AND RINGWALL, INC. DATED MAY 2005. JOB NO. 03214A.

# ASSESSORS REFERENCE

# **GENERAL NOTES**

- I. LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.
- 3. BURIED UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE COMPANY SPECIFICATIONS.
- . CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR. LOCATIONS OF EXISTING FEATURES OR PROPOSED IMPROVEMENTS DERIVED BY SCALING DRAWINGS MAY NOT BE ACCURATE. PROPERTY LINES SHOWN HEREON ARE APPROXIMATE. SEE PLAN REFERENCE HEREON.
- 5. SAFETY MEASURES, CONSTRUCTION METHODS, AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING UTILITY OR STRUCTURE DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON. DAMAGED UTILITY OR STRUCTURE SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.
- . ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.
- 8. CONTRACTOR SHALL NOTIFY ENGINEER UPON COMMENCEMENT OF CONSTRUCTION IN ORDER TO ENSURE THAT REQUIRED INSPECTIONS ARE PERFORMED IN A TIMELY AND EFFICIENT MANNER. 9. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER UPON DISCOVERY OF ANY UNFORESEEN SURFACE OR SUBSURFACE
- CONDITIONS THAT MAY IMPACT SITE CONSTRUCTION.
- 10. FINISH RIM ELEVATIONS SHOULD MATCH PAVEMENT, GRADING OR LANDSCAPING, UNLESS SPECIFICALLY INDICATED
- . WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.
- 12. EROSION CONTROL MEASURES, SUCH AS SILT FENCE OR HAY BALES AS MAY BE SHOWN HEREON, SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS WITHIN BUFFER ZONE, AND SHALL SERVE AS THE LIMIT OF WORK.
- 13. WHERE THE WORD "INSTALL" IS USED HEREIN, IT IS INTENDED TO DIRECT CONTRACTOR TO "FURNISH, INSTALL, AND PLACE IN OPERATION" THE COMPONENT REFERRED TO.
- 14. LIMITS OF WORK SHALL BE STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- 15. ALL STORM DRAIN PIPE TO BE SMOOTH INTERIOR HDP PIPE, 2.0 PSI GASKETED JOINT, UNLESS OTHERWISE NOTED.
- 16. WHERE SHOWN, CONSTRUCTION NOTES ARE INTENDED TO SUMMARIZE AND CLARIFY MAJOR ITEMS OF WORK. THESE NOTES SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE LISTING OF ALL WORK REQUIRED. CONTRACTOR SHOULD CONTACT ENGINEER WHEN FURTHER CLARIFICATION OF DEPICTED WORK IS DESIRED.
- 17. CONSTRUCTION OF FIRE AND DOMESTIC WATER SUPPLY IMPROVEMENTS SHALL CONFORM TO TOWN OF GROTON
- 18. WHERE DIMENSIONS INVOLVE CURB, DIMENSIONS ARE TO FACE OF CURB. WHERE SLOPED GRANITE CURB OR CAPE COD BERM SPECIFIED, FACE OF CURB IS EDGE OF FINISH PAVEMENT AT TOE OF CURB.
- 19. NO DEBRIS, JUNK, RUBBISH OR OTHER NON-BIODEGRADABLE MATERIALS, FILL CONTAINING HAZARDOUS MATERIALS OR WASTES, OR STUMPS SHALL BE BURIED ON ANY LAND ON THIS SITE, OR LEFT ON ANY LOT OR ON THE STREET RIGHT OF WAY.
- 20. TOWN OF GROTON WATER DEPARTMENT'S RULES AND REGULATIONS, AND MATERIALS AND INSTALLATION SPECIFICATIONS WILL GOVERN THE WATER UTILITY PORTIONS OF WORK HEREIN.
- 21. ALL EXTERNAL DISCONNECTS FOR UTILITIES SHALL BE LOCKED.
- 22. EXCEPT FOR HANDICAPPED SPACES, NO PARKING SPACES WILL BE EXCLUSIVELY RESERVED FOR INDIVIDUAL OR BUSINESS

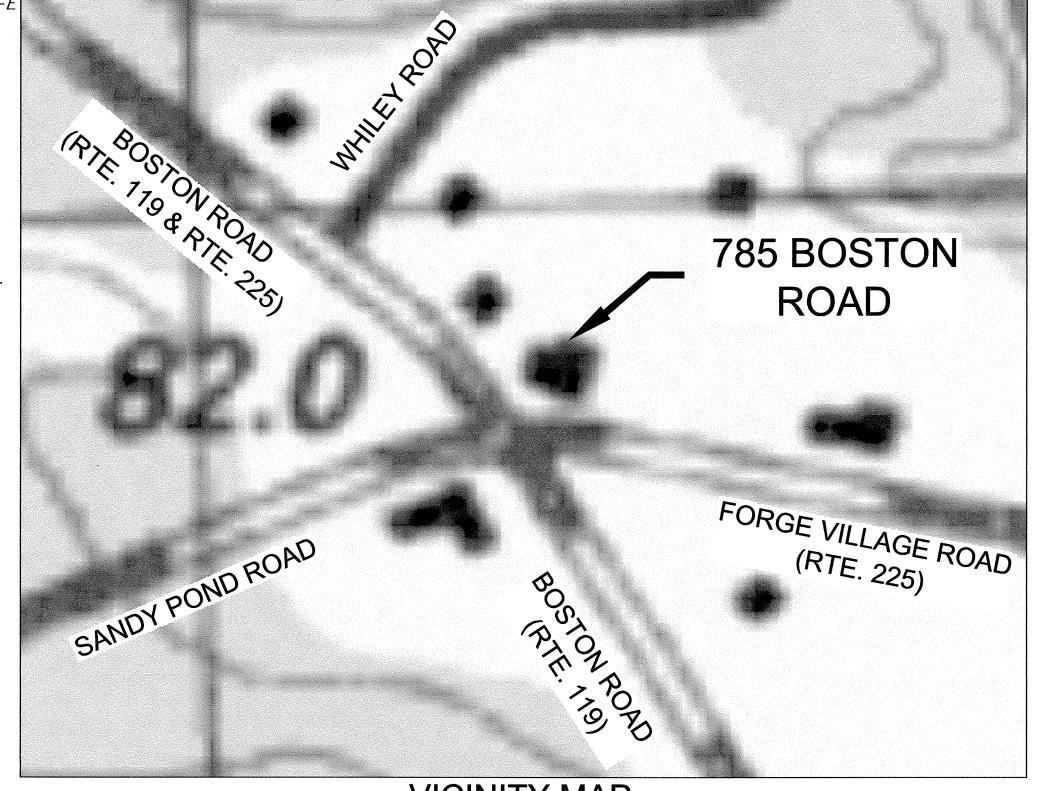
# **REGULATORY NOTES**

- . CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 888.344.7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL GIVE TWENTY-FOUR (24)-HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD.
- 2. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
- 3. CONTRACTOR SHALL BE AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS
- AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK. 4. ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATION SHALL

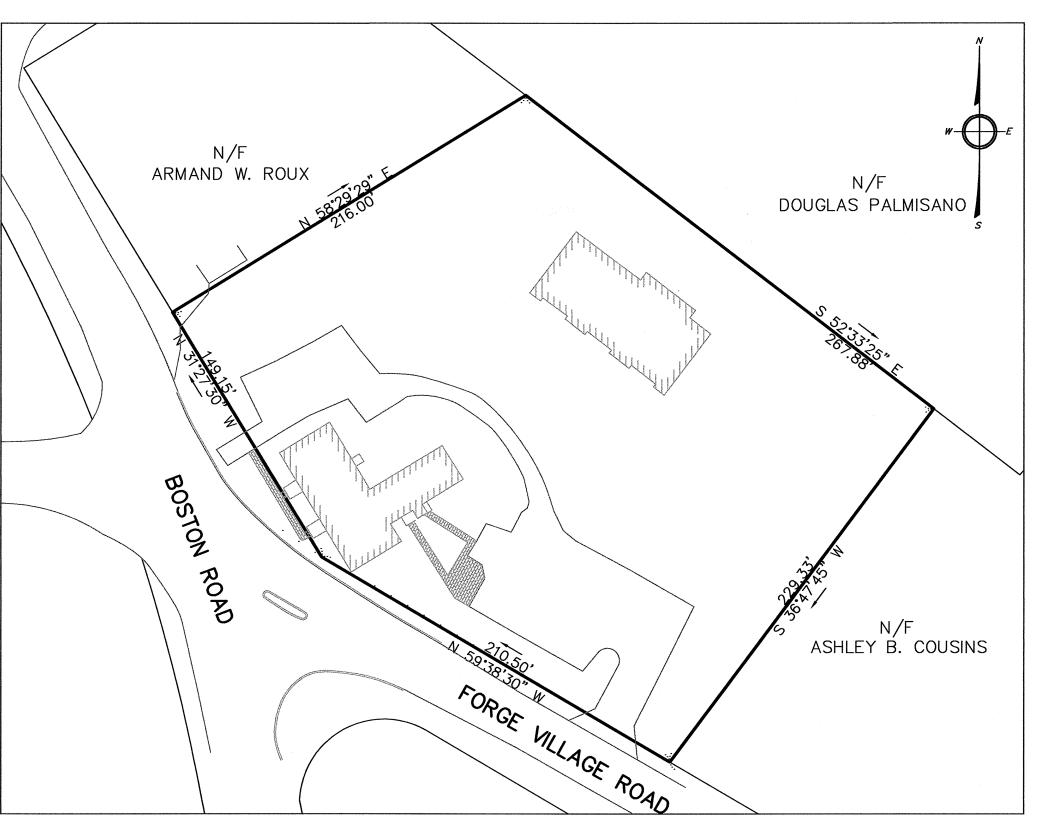
CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.

# PERMIT PLAN

# 785 BOSTON ROAD GROTON, MA



**VICINITY MAP** 



# **ZONING**

Parameter	Section [1]	Requirement	Remarks
Zoning District	218-8	B-1	Business District
Oxedex District		and Nata [O]	
Overlay District	218-30	see Note [2]	DEP Zone 3
Proposed Use	218-13	allowed	Commercial Building: Retail, Food Service, Office
Lot Area	218-20	none	No minimum for nonresidential uses
Frontage	218-20	none	No minimum for nonresidential uses
Lot Width	218-22.K	see Note [3]	
Yard			
Fron	t 218-20	50 FT	
Side	218-20	15 FT	
Rea	r 218-20	15 FT	
Building Height	218-20	35 FT, 3 stories	
Building Coverage	218-20	25%	Maximum Lot Coverage
Floor Area Ratio		none	
Open Space	345A-2A.(4)	25%	6 Minimum for lots< 3 acres
Parking	218-23	Consult Parking Computatio	ns Table [4]
	2 10-23	Consult anning computation	1.0 (42).0 [1]
Wetlands Setback	local bylaw	200' rivers; 100' wetlands	Chapter 215 (none on site)
MDEP Riverfront Area			none on site
FEMA Floodplain			Zone C (Area of minimal flooding)
ACEC			none on site
Zone 1 Protective Radius			none on site
Mapped Zone 2			none on site
IWPA		-	within mapped zone

[1] Reference to section of Zoning Bylaw, where applicable.

[2] Section 218-30 Water Resource Protection District III (WRPD III).

[3] Not less than the frontage requirement shall be maintained for 50 FT measured perpendicular to a straight line connecting the 2 front lot corners, and at no point within the area from the front yard depth to principal dwelling shall the distance between the side lot lines be < 75% of minimum required frontage.

[4] Section 218—23B: Minimum parking requirements Section 218—23C: Required parking must be located on same premises as the activity it serves.

Each parcel shall be credited with 10 on-street parking spaces if the parcel is served by the existing curb and sidewalk system (this on-street parking does not qualify as meeting parking requirements for Section 218-25A). Off-street parking, loading areas and access drives (if involving 6 or more parking spaces) shall be treated with bituminous or other paving material and illumination shall be arranged and screened if necessary to deflect light away from ajoining lots and abutting streets. Parking areas with 6 or more spaces to be designed so that no vehicle will be required to back into a public way to exit from space. At least 5% of the interior of any parking lot having 20 or more spaces shall be maintained with landscaping, including trees, in plots of at

SF=square feet; CF=cubic feet; FT=feet; GFA=gross floor area; AC=acres; PB=Planning Board; ZBA=Zoning Board of Appeals; IWPA=interim wellhead protection area; ACEC=Area of Critical Environmental Concern; FIRM=Flood Insurance Rate Map; MDEP=Massachusetts Dept of Environmental

# PARKING COMPUTATIONS

USE	FORMULA	VARIABLE	REQUIRED SPACES	EXISTING SPACES	PROPOSED SPACES
Restaurant	5 minimum, plus 1 space per 2 seats	44 seats	27	0	27
Office	2 spaces plus 1 space per 180 SF GFA	6,680 SF	40	App 22	40
Salon (other service est.)	5 minimum, plus 1 space per 250 SF GFA	3,000 SF	17	0	17
TOTAL			84	22	84

LANDSCAPING

FORMULA FOR LOTS CONTAINING 25 OR MORE PARKING SPACES: 5% of parking area shall be maintained with landscaping 1 tree per 8 spaces with 60 SF of landscaped area per tree

1.700 SF Landscaped Area 11 Trees with 637 SF Landscaped Area

PROPOSED > 1,700 SF Landscaped Area > 20 Trees with > 1,700 SF Landscaped Area

1.See Zoning Bylaw section 345A-1 through 345A-3

2. Parking and Landscape Requirements are uneffected by change in building use.

SF=Square Feet, GFA=Gross Floor Area, App.= Approximate, >=Greater than

# **COVERAGE COMPUTATIONS**

PARAMETER	AREA (ACRES)	AREA (SQUARE FEET)	FRACTION OF TOTAL LOT AREA (%)
EXISTING CONDITION			*
Lot Area	1.71	74,282	100%
Building Footprint	0.08	3,361	4.5%
Other Impervious Area	0.25	10,954	14.7%
Total Impervious Coverage	0.33	14,315	19.3%
Existing Open Space	1.37	59,967	80.7%
PROPOSED CONDITION			
Lot Area	1.71	74,282	100%
Building Footprint	0.16	6,918	9%
Other Impervious Area	0.68	29,502	40%
Total Impervious Coverage	0.84	36,420	49%
Proposed Open Space	0.87	37,862	51%

# **SURVEY NOTES:**

2. SEE PLAN # 40 OF 1971, MIDDLESEX NORTH DISTRICT REGISTRY OF DEEDS

3. THE RESPONSIBILITY OF THE PROFESSIONAL LAND SURVEYOR IS LIMITED TO LOT BOUNDARY AND EXISTING TOPOGRAPHIC DATA ONLY



APPROVED BY THE GROTON PLANNING BOARD

CHAIR APPLICATION FILED HEARING DATE PLAN APPROVED

THIS SITE PLAN APPROVAL DOES NOT NECESSARILY INDICATE COMPLIANCE WITH THE

### DRAWING ISSUED FOR:

☐ CONCEPT ☐ CONSTRUCTION

☐ CONSTRUCTION RECORD

THIS DRAWING IS NOT INTENDED TO SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, NOR IS IT INTENDED TO DEFINE ALL CONSTRUCTION CONTRACTOR RESPONSIBILITIES/AREAS OF JURISDICTION.

6. | 05/19/05 | MS | DEM | SPECIAL PERMIT/SITE PLAN REVIEW MODIFICATION 5. | 05/17/04 | MS | BNC PER TOWN COMMENTS 4. | 04/23/04 | MS | BNC PER TOWN COMMENTS . | 3/26/04 | NMP | BNC PER TOWN COMMENTS 2. | 03/18/04 | MS | BNC LOT CONFIGURATION 02/20/04 MS BNC PER JNEI LETTER DATED 02/05/04 DATE | BY APP. REVISION DESCRIPTION



**Engineering Solutions** for Land & Structures

#### **GOLDSMITH, PREST & RINGWALL, INC.**

39 MAIN STREET, SUITE 301. AYER, MA 01432 CIVIL & STRUCTURAL ENGINEERING • LAND SURVEYING & LAND PLANNING VOICE: 978.772.1590 FAX: 978.772.1591 www.gpr-inc.com

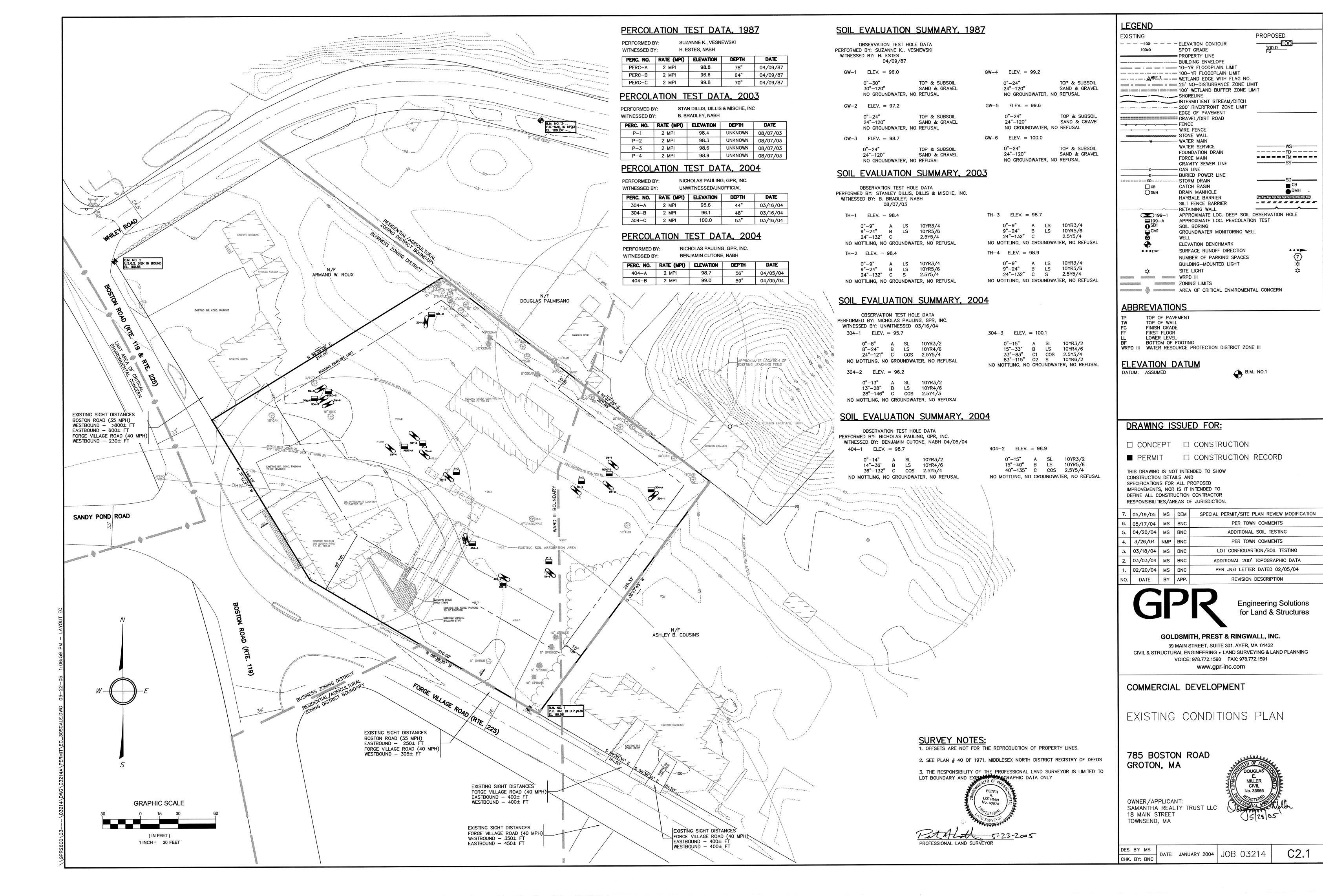
COMMERCIAL DEVELOPMENT

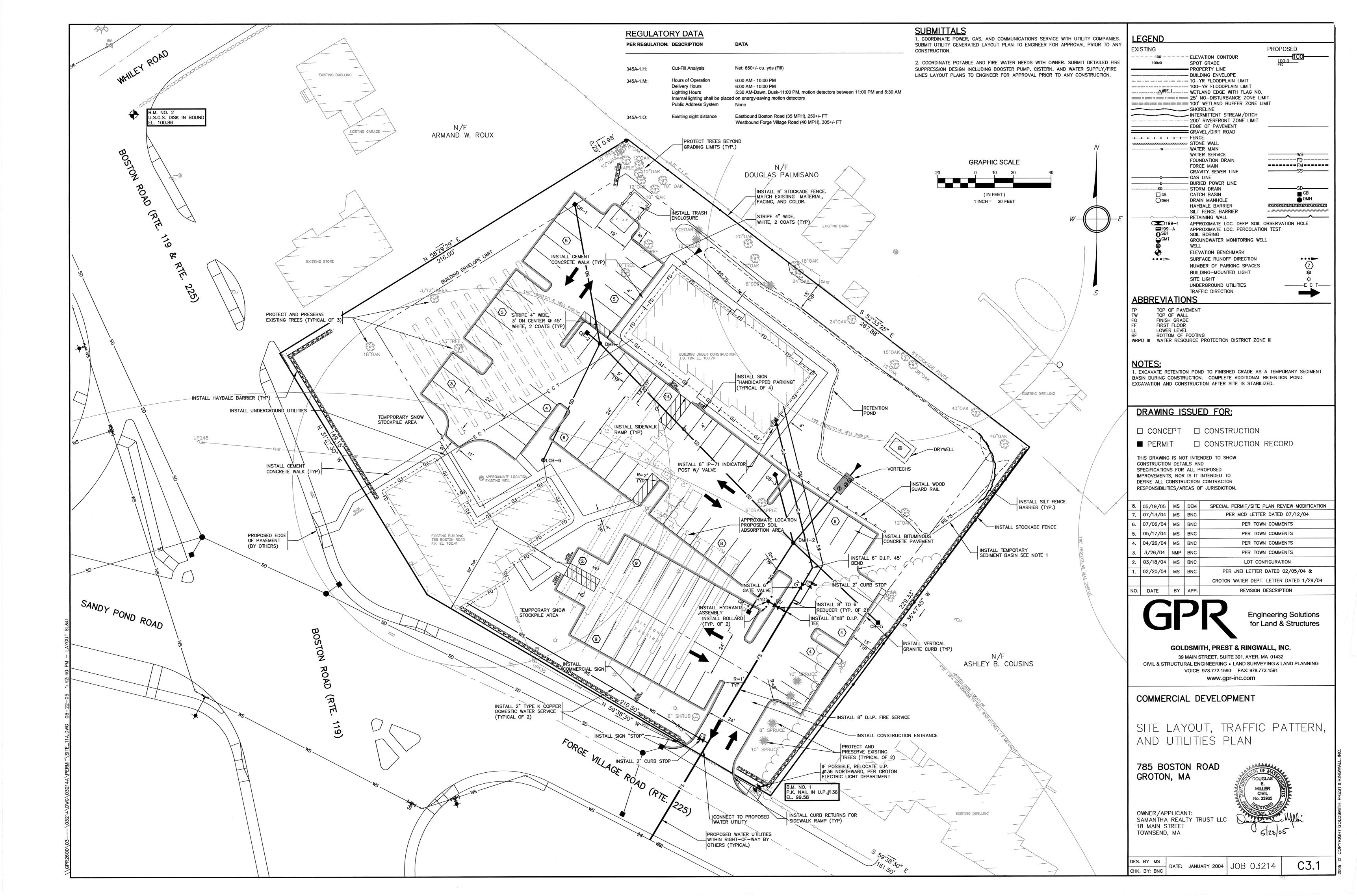
TITLE SHEET

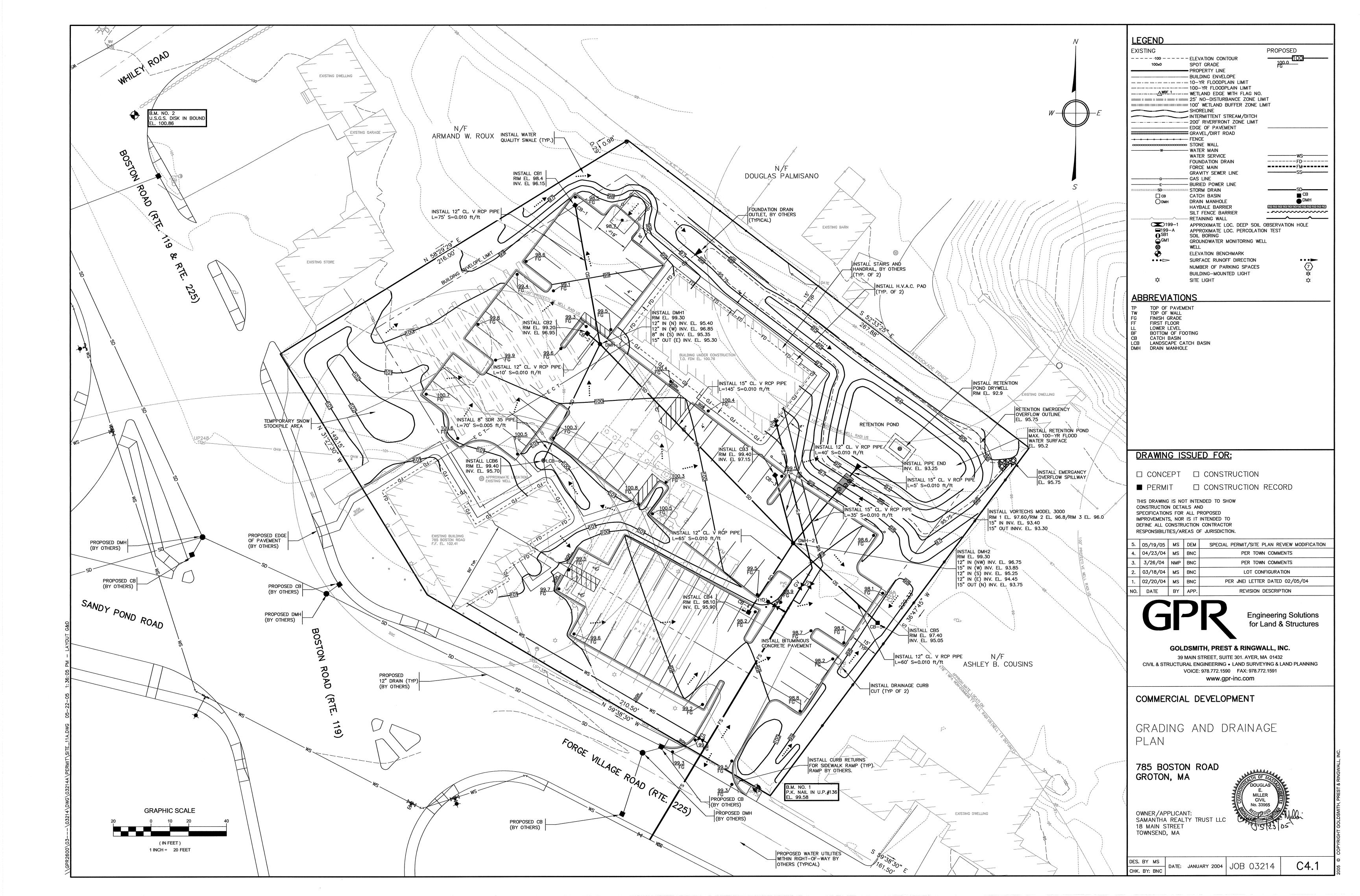
785 BOSTON ROAD GROTON, MA

OWNER/APPLICANT: SAMANTHA REALTY TRUST LLC 18 MAIN STREET TOWNSEND, MA

- date: january 2004 | JOB 03214







#### **EROSION AND SEDIMENT CONTROL** REQUIREMENTS

#### PART 1 - GENERAL

1.01 SUMMARY

A. FURNISH, INSTALL, AND MAINTAIN TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL MEASURES, SUCH AS, BUT NOT NECESSARILY LIMITED TO, HAY BALE AND SILT FENCE BARRIERS, RIPRAP, DIVERSION CHANNELS AND BERMS, CHECK DAMS, STRATEGICALLY LOCATED STOCKPILES, SEDIMENT BASINS, MULCH, AND SEED MIX (HEREINAFTER "CONTROL MEASURES") ADEQUATE TO PREVENT THE CONVEYANCE OF EROSION PRODUCTS (E.G. SOIL, MULCH, SOD) OFF SITE, OR INTO ENVIRONMENTALLY SENSITIVE AREAS, OR INTO AREAS WHERE WORK WILL BE ADVERSELY IMPACTED. ENVIRONMENTALLY SENSITIVE AREAS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, WETLANDS, TRIBUTARIES TO WETLANDS, WETLAND BUFFER ZONES, INTERMITTENT AND PERENNIAL STREAMS / RIVERS, AND THEIR ATTENDANT BUFFER ZONES.

1. REFER TO DRAWINGS FOR LOCATION AND DETAILS OF CONTROL MEASURES REQUIRED TO COMMENCE WORK. THESE CONTROL MEASURES WILL BE ADEQUATE ONLY FOR VEGETATION CLEARING. THE DRAWINGS ARE NOT INTENDED TO GRAPHICALLY DEPICT ALL CONTROL MEASURES THAT WILL BE REQUIRED TO MEET THE REQUIREMENTS DESCRIBED IN 02960.1.01.A.

2. DEVISE AND EMPLOY CONTROL MEASURES THROUGHOUT THE DURATION OF PROJECT, OVER ALL AREAS DISTURBED OR UNDISTURBED BY CONSTRUCTION, AS NECESSARY TO MEET THE REQUIREMENTS DESCRIBED IN 02960.1.01.A. 3. DEVISE AND EMPLOY TEMPORARY CONTROL MEASURES AS NECESSARY TO MEET THE

REQUIREMENTS DESCRIBED IN 02960.1.01.A, WHILE ALLOWING WORK TO PROCEED IN AN EFFICIENT, COST EFFECTIVE MANNER. 4. DEVISE, EMPLOY AND MAINTAIN CONTROL MEASURES UNTIL SUCH TIME AS THE

ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA. 5. ONCE THE SITE IS PERMANENTLY STABILIZED AND CERTIFIED AS SUCH BY ENGINEER, REMOVE TEMPORARY CONTROL MEASURES WHILE PROTECTING STABILIZED SURFACES.

1.02 SUBMITTALS

A. SUBMIT PRODUCT DATA, WARRANTY, AND TEST REPORTS AS INDICATED ON THE DRAWINGS.

1.03 QUALITY ASSURANCE

A. COMPLY WITH GOVERNING CODES AND REGULATIONS. PROVIDE PRODUCTS FROM ACCEPTABLE MANUFACTURERS. USE EXPERIENCED INSTALLERS. DELIVER, HANDLE, AND STORE MATERIALS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

B. CONFORM TO CONDITIONS OF APPROVAL ISSUED BY REGULATORY AGENCIES INCLUDING, BUT NOT NECESSARILY LIMITED TO, LOCAL PLANNING BOARD, CONSERVATION COMMISSION, BOARD OF SELECTMEN, BOARD OF HEALTH, PUBLIC WORKS / HIGHWAY DEPARTMENT, STATE ENVIRONMENTAL PROTECTION DEPARTMENT, AND U.S. GOVERNMENT, ENVIRONMENTAL PROTECTION AGENCY. WHERE CONDITIONS OF REGULATORY APPROVAL DIFFER FROM REQUIREMENTS CONTAINED HEREIN OR ON THE DRAWINGS, COMPLY WITH THE MORE STRINGENT REQUIREMENT.

#### PART 2 - PRODUCTS

2.01 MATERIALS

A. HAY BALES: DRY GRASS OR STRAW, MACHINE BOUND WITH JUTE OR WIRE, APPROXIMATE SIZE EACH BALE 42" X 16" X 16".

B. SILT FENCE: NON-WOVEN, UV-RESISTANT, POLYPROPYLENE FABRIC, FLOW RATED AT 10 GPM/SF MINIMUM, GRAB TENSILE RATED AT 124 POUNDS MINIMUM, WITH INTEGRAL STAKE LOOPS, AND HARDWOOD STAKES. USE NO. 2130 BY AMOCO FABRICS & FIBERS, OR APPROVED EQUAL.

C. MULCH: ORGANICS INCLUDING HAY, PROCESSED PINE / HEMLOCK TWIGS AND NEEDLES.

D. SEED MIXES: PERENNIAL RYEGRASS, KENTUCKY BLUEGRASS, AND / OR FINE FESCUE, DISEASE RESISTANT. NON-MAINTAINED AREA OPTION - ANNUAL RYEGRASS COMBINED WITH MEDIUM RED CLOVER.

E. EXCELSIOR BLANKET: CURLED WOOD FIBER ON PHOTODEGRADABLE EXTRUDED PLASTIC MATRIX, 80% OF FIBERS 6-INCHES LONG OR LONGER, WEIGHT 0.975 POUNDS / SY, CONTAINING NO CHEMICAL ADDITIVES. USE CURLEX I BLANKET BY AMERICAN EXCELSIOR COMPANY, OR APPROVED EQUAL.

F. ROCK RIPRAP: SOUND, ANGULAR, 6-INCH MINUS PROCESSED ROCK, BLAST ROCK, OR TAILINGS.

G. CRUSHED STONE: SOUND, ANGULAR, 2-INCH MINUS PROCESSED CRUSHED STONE

#### PART 3 - EXECUTION

3.01 THROUGHOUT CONSTRUCTION

A. DEVISE WORK SEQUENCE SO AS TO LIMIT DRAINAGE AREA THAT IS TRIBUTARY TO DISTURBED AREAS. DEVISE, EMPLOY, AND MAINTAIN CONTROL MEASURES SUCH AS DIVERSION CHANNELS AND BERMS, STRATEGICALLY LOCATED STOCKPILES, AND SEDIMENT BASINS TO SUBDIVIDE DRAINAGE AREAS INTO SMALL, MANAGEABLE SUBAREAS, THEREBY MINIMIZING RUNOFF AND THE POTENTIAL FOR EROSION.

B. MAINTAIN BARRIER AT LIMIT OF WORK AND PROTECT EXISTING VEGETATION / FACILITIES OUTSIDE OF LIMIT OF WORK.

C. MAINTAIN SPARE MATERIAL STOCKPILES FOR IMMEDIATE EMPLOYMENT / REPAIR / EXPANSION OF CONTROL MEASURES. AT A MINIMUM, SUCH MATERIALS SHALL INCLUDE HAY BALES, SILT FENCE AND STAKES, AND CRUSHED STONE.

D. INSPECT AND MAINTAIN EFFECTIVENESS OF CONTROL MEASURES BY REPAIRING AS NECESSARY TO ENSURE INTENDED FUNCTION; BY SUPPLEMENTING AS NECESSARY FOR ADEQUATE EXTENT; BY REMOVING TRAPPED PRODUCTS OF EROSION AS NECESSARY TO MAINTAIN EFFECTIVE TRAP VOLUME.

E. LIMIT EXTENT OF WORK AREA SO THAT ALL DISTURBED AREAS CAN BE STABILIZED WITH CONTROL MEASURES WITHIN A 24-HOUR PERIOD.

F. INSTALL CONTROL MEASURES AS SOON AS PRACTICABLE AFTER EACH MANAGEABLE PORTION OF EARTHWORK IS COMPLETE. EMPLOY TEMPORARY MEASURES AS NECESSARY TO STABILIZE DISTURBED AREAS, EVEN WHERE SUBSEQUENT CONSTRUCTION OPERATIONS MAY REQUIRE RE-DISTURBANCE.

G. WHEN INTENSE RAINFALL IS EXPECTED, CONSIDER, DEVISE, AND EMPLOY REINFORCING CONTROL MEASURES PRIOR TO THE RAINFALL EVENT TO MEET THE REQUIREMENTS DESCRIBED IN 02960.1.01. A. IF NECESSARY, EMPLOY TEMPORARY CONTROL MEASURES ON MATERIAL STOCKPILES TO COUNTERACT POTENTIAL SEDIMENT TRANSPORT DURING INTENSE RAINFALL.

H. WHEN VEHICLE REFUELING IS REQUIRED ON SITE, CONDUCT REFUELING OPERATIONS OUTSIDE OF ENVIRONMENTALLY SENSITIVE AREAS.

I. PROPERLY DISPOSE OF DEBRIS, SOLID WASTE, TRASH, AND CONSTRUCTION WASTE / BYPRODUCTS OFF SITE.

J. SWEEP ON-SITE PAVED AREAS AND OFF-SITE STREETS AS NECESSARY TO PREVENT SILT AND DEBRIS ORIGINATING ON SITE FROM ENTERING CLOSED DRAINAGE SYSTEMS AND / OR ENVIRONMENTALLY SENSITIVE AREAS.

3.02 SITE PREPARATION AND ACCESS

A. WALK SITE AND IDENTIFY LOCATIONS OF LIMIT OF WORK AND ENVIRONMENTALLY SENSITIVE AREAS. ESTABLISH CONSTRUCTION STAGING AREA, LOCATED BEYOND ENVIRONMENTALLY SENSITIVE AREAS.

B. INSTALL CONTROL MEASURES AS SHOWN ON THE DRAWINGS, INCLUDING THOSE DEFINING THE LIMIT OF WORK.

C. LIMIT VEHICULAR TRAFFIC TO AND FROM SITE TO MINIMIZE TRANSPORT OF SEDIMENT. 3.03 CLEARING, GRUBBING, AND STRIPPING

A. SCHEDULE GRUBBING AND STRIPPING TO OCCUR IMMEDIATELY PRIOR TO EARTH DISTURBANCE. DEPENDING ON SITE AREA, CONSIDER MULTIPLE GRUBBING PHASES, SEQUENCED TO TAKE ADVANTAGE OF THE EROSION PREVENTION POTENTIAL OF EXISTING VEGETATIVE COVER.

B. MINIMIZE THE AREA OF EXISTING VEGETATION REMOVED WHEREVER POSSIBLE.

C. LOCATE AND SIZE STOCKPILES TO MINIMIZE EROSION POTENTIAL, TAKING ADVANTAGE OF TERRAIN SLOPE AND ASPECT, WHERE APPROPRIATE.

D. PROTECT VEGETATION, INCLUDING ROOT SYSTEMS, BEYOND LIMIT OF CLEARING.

E. PROCESS TIMBER, STUMPS, SLASH, AND BRUSH SO AS TO PROTECT ENVIRONMENTALLY SENSITIVE AREAS AND INSTALLED CONTROL MEASURES. PROPERLY DISPOSE OF EXCESS OFF SITE. BURIAL OF STUMPS ON SITE IS PROHIBITED.

3.04 EXCAVATION FOR BUILDING FOUNDATIONS AND UTILTIES

A. DEVISE AND INSTALL CONTROL MEASURES ADEQUATE TO HANDLE DISCHARGES AND TRAP SEDIMENT FROM FOOTING SUMP AND WELL POINT PUMPS PRIOR TO EXCAVATION. B. ARMOR SUMP PUMP DISCHARGE LOCATIONS TO PREVENT EROSION AT POINT OF DISCHARGE AND AREAS DOWNSTREAM.

C. IF FOUNDATION EXCAVATIONS GRADE TO DAYLIGHT ON THE LOW SIDE. DEVISE AND INSTALL CONTROL MEASURES TO HANDLE SURFACE AND GROUNDWATER FLOW FROM

D. STOCKPILE EXCAVATED MATERIALS TO BAFFLE OVERLAND RUNOFF, AVOIDING THE CREATION OF LENGTHY PATHS OF CONCENTRATED RUNOFF.

E. BACKFILL UTILITY TRENCHES AS SOON AS PRACTICABLE TO PREVENT FLOODING, SLOUGHING, POTENTIAL OVERFLOW, AND REPETITIVE EARTH DISTURBANCE. 3.05 SITE GRADING

A. WHERE APPLICABLE, FOLLOW EXCAVATION AND FILL PRACTICES SHOWN ON DRAWINGS TO LOCALIZE AND MINIMIZE EROSION.

B. MONITOR SEDIMENT VOLUME IN TEMPORARY SEDIMENT BASINS AND AT DIVERSION BERMS AND CHECK DAMS. IN ALL AREAS EXCEPT THOSE THAT DO NOT PRESENT POTENTIAL PROBLEMS WITH REGARD TO FUTURE SOIL STABILITY, DRAINAGE, OR BEARING CAPACITY, REMOVE AND PROPERLY DISPOSE OF TRAPPED SEDIMENT BEFORE BRINGING SITE TO FINAL SUBGRADE.

3.06 STORMWATER MANAGEMENT SYSTEM

A. THE STORMWATER MANAGEMENT SYSTEM INCLUDES, BUT IS NOT NECESSARILY LIMITED TO, ALL PERMANENT DETENTION / RETENTION BASINS, DISCHARGE STRUCTURES / WEIRS, CULVERTS, OPEN CHANNELS, CURBS, GUTTERS, PAVED SWALES, CATCH BASINS, DRAIN MANHOLES, DRAINAGE PIPES, ROOF DRAIN MANIFOLDS, WATER QUALITY SWALES, SEPARATORS, AND SIMILAR STORMWATER RUNOFF CONVEYANCE, TREATMENT, AND STORAGE FACILITIES.

B. INSTALL STORMWATER MANAGEMENT SYSTEM COMPONENTS STARTING AT THE DOWNSTREAM END AND PROCEED UPSTREAM. WHERE POSSIBLE, COMPLETE INSTALLATION OF PERMANENT DETENTION / RETENTION BASINS PRIOR TO BEGINNING WORK ON UPSTREAM SYSTEM COMPONENTS.

C. INSTALL CONTROL MEASURES AT FINISHED UPSTREAM AND DOWNSTREAM PIPE ENDS AS SOON AS POSSIBLE AFTER COMPLETION OF PIPE RUN. SUCH MEASURES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, RIPRAP, CHECK DAMS, HAY BALE / SILT FENCE BARRIERS, AND VELOCITY DISSIPATORS.

D. AT THE END OF EACH DAY OR WHEN RAINFALL IS EXPECTED, PLUG UPSTREAM END OF PIPES / DAM OPEN CHANNELS OR OTHERWISE REDIRECT POTENTIAL RUNOFF AND PREVENT FLOW FROM ENTERING PARTIALLY COMPLETED SYSTEM / SYSTEM

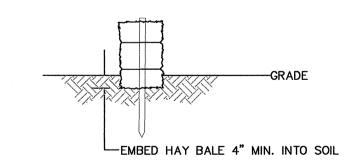
E. WHERE PORTIONS OF A NEW SYSTEM ARE TO BE ACTIVATED PRIOR TO COMPLETION OF THE ENTIRE SYSTEM, EMPLOY CONTROL MEASURES TO PREVENT SILT AND DEBRIS FROM ENTERING THE SYSTEM. EMPLOY SILT SACKS OR FABRIC ON CATCH BASIN INLETS, AND PIPE AND CULVERT OPENINGS. EMPLOY CHECK DAMS AND TEMPORARY SEDIMENT BASINS UPSTREAM OF AND ALONG OPEN CHANNELS, SWALES, AND DITCHES TO TRAP SEDIMENT UPGRADIENT OF ENVIRONMENTALLY SENSITIVE AREAS.

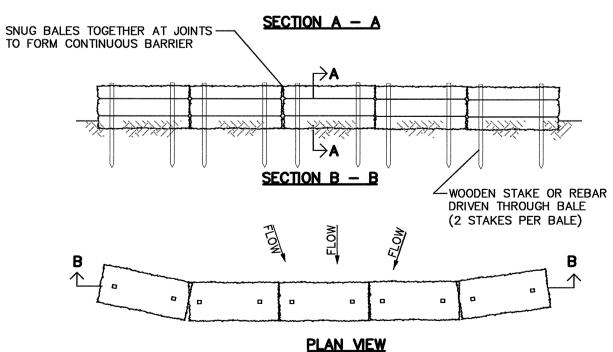
F. REMOVE TRAPPED SEDIMENT AND DEBRIS FROM ALL SYSTEM COMPONENTS AFTER COMPLETION OF INSTALLATION, AND AGAIN AFTER THE ENTIRE SITE IS PERMANENTLY STABILIZED BY ESTABLISHED VEGETATION, FINISH LANDSCAPE MATERIALS, PAVED SURFACES, AND/OR ROOF AREA. REMOVE TRAPPED SEDIMENT AND DEBRIS FROM DETENTION / RETENTION BASIN BOTTOMS SO THAT FINISH BOTTOM MATERIALS / INFILTRATION FUNCTION CONFORM TO DESIGN.

3.07 LANDSCAPING

A. COMPLETE LANDSCAPING AS SOON AS POSSIBLE AFTER COMPLETION OF FINAL SUBGRADE.

B. IMMEDIATELY AFTER PLACEMENT OF TOPSOIL, STABILIZE WITH CONTROL MEASURES INCLUDING, BUT NOT NECESSARILY LIMITED TO, SEED MIX, MULCH, AND / OR BLANKET.





1. INSPECT AND REPAIR BARRIER AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

2. REMOVED SEDIMENT SHALL BE DEPOSITED TO NON-SENSITIVE UPLAND AREA.

> HAY BALE BARRIER NOT TO SCALE

3.08 TEMPORARY SEEDING PROCEDURE.

3.09 PERMANENT SEEDING PROCEDURE.

A. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES.

B. INSTALL A MINIMUM OF 2- TO 4-INCHES OF TOPSOIL

C. APPLY UNIFORMLY 2 TONS OF GROUND LIMESTONE PER ACRE OR ACCORDING TO SOIL TEST. APPLY UNIFORMLY 10-10-10 ANALYSIS FERTILIZER AT A RATE OF 400 LBS PER ACRE OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF NITROGEN

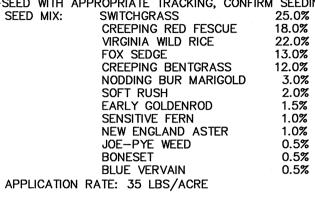
D. HYDRO-SEED WITH APPROPRIATE TRACKING, CONFIRM SEEDING DATE/MIX WITH

E. MULCH THE SEEDINGS WITH CLEAN STRAW APPLIED AT A RATE OF 1/2 TON PER ACRES. ANCHOR THE MULCH WITH EROSION CONTROL NETTING OR FABRIC.

A. SPREAD TOPSOIL TO A 2- TO 6-INCH MINIMUM DEPTH, BLADE SMOOTH AND ROLL

B. APPLY UNIFORMLY 2.5 TONS OF GROUND LIMESTONE PER ACRE OR ACCORDING TO SOIL TEST. APPLY UNIFORMLY 10-20-20 ANALYSIS FERTILIZER AT A RATE OF 500 LBS PER ACRE OR AS INDICATED BY SOIL TEST. FORTY PERCENT OF NITROGEN SHOULD BE IN ORGANIC OR SLOW RELEASE FORM.

C. HYDRO-SEED WITH APPROPRIATE TRACKING, CONFIRM SEEDING DATE WITH ENGINEER.



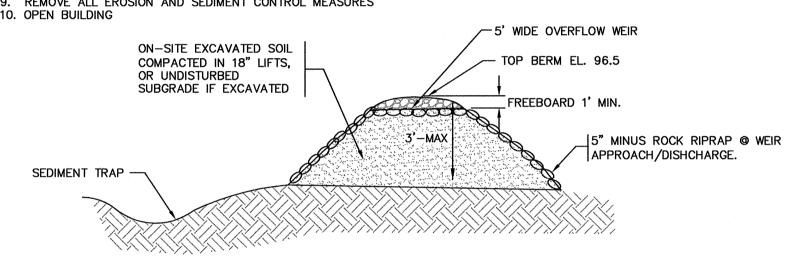
D. MULCH THE SEEDINGS WITH STRAW APPLIED AT A RATE OF 1/2 TON PER ACRES. ANCHOR THE MULCH WITH EROSION CONTROL NETTING OR FABRIC ON SLOPING AREAS.

3.10 CONSTRUCTION SEQUENCE

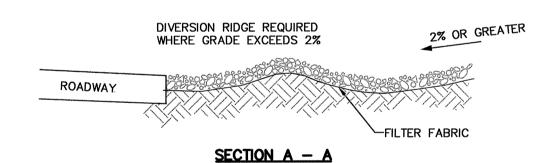
1. INSTALL ALL EROSION AND SEDIMENT CONTROL MEASURES (SEE: EROSION & SEDIMENT CONTROL REQUIREMENTS AND SOIL EROSION AND SEDIMENT CONTROL PERMIT) 2. BEGIN SITE CLEARING, EARTHWORK AND UTILITY INSTALLATION BEGIN BUILDING FOUNDATION CONSTRUCTION 4. INSTALL SUBSURFACE SEWAGE DISPOSAL SYSTEM INSTALL ALL PAVEMENT, WALKS, CURBING, ETC

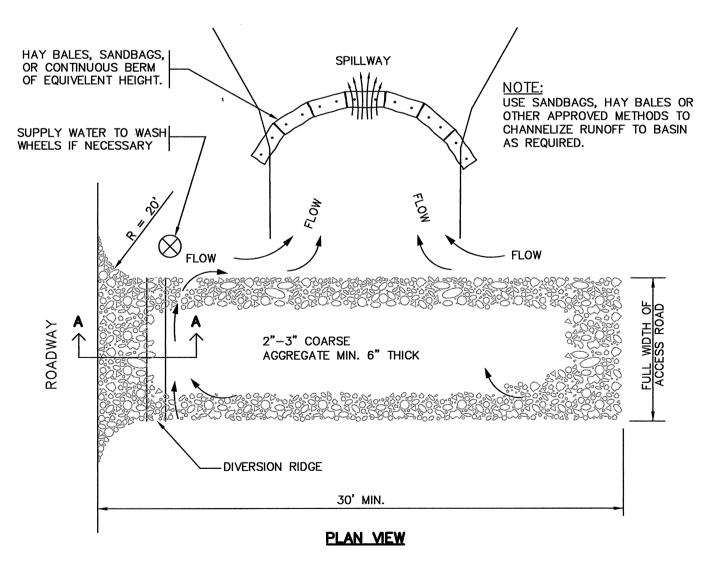
EXCAVATE TEMPORARY SEDIMENT BASIN AND COMPLETE RETENTION POND CONSTRUCTION

COMPLETE PLANTING 8 STABILIZE SITE P. REMOVE ALL EROSION AND SEDIMENT CONTROL MEASURES



#### TEMPORARY SEDIMENT BASIN TYPICAL CROSS SECTION





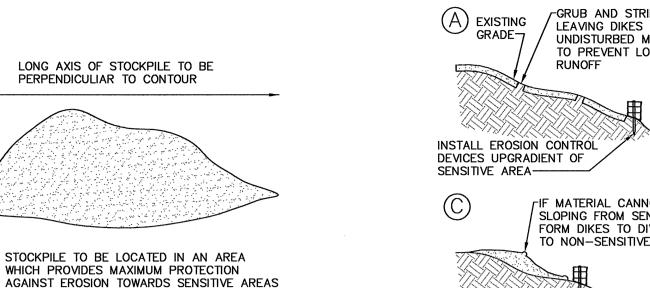
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AREA STABILIZED WITH CRUSHED STONE

CONSTRUCTION ENTRANCE

THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.



CONTINUOUS STAKED HAY BALE DIKE PLACED DOWNGRADIENT OF STOCKPILE



EXTRA STRENGTH FILTER FABRIC NEEDED WITHOUT WIRE MESH SUPPORT-

ATTACH FILTER FABRIC

SIDE OF POST-

SECURELY TO UPSTREAM

WOOD POST-

-WOOD POST

4"x6" TRENCH WITH

MAXIMIZE PONDING EFFICIENCY.

NON-SENSITIVE UPLAND AREA.

TYPICAL CROSS SECTION

NOT TO SCALE

SILT FENCE BARRIER

TRENCH BACKFILL

COMPACTED BACKFILL

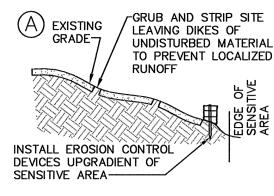
1. SILT FENCE SHALL BE PLACED ALONG CONTOUR TO

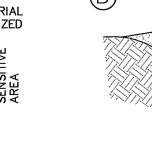
2. INSPECT AND REPAIR FENCE AFTER EACH STORM

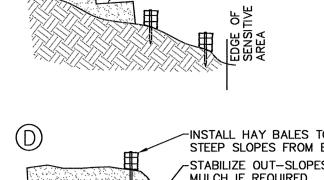
EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

3. REMOVED SEDIMENT SHALL BE DEPOSITED TO A

36" HIGH MAX.



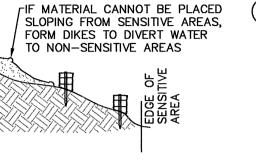




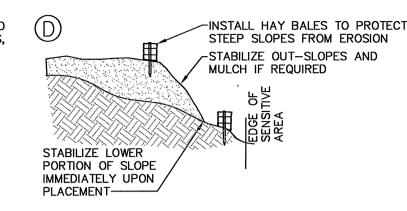
-PLACE MATERIAL WITH

SLOPE AWAY FROM

SENSITIVE AREA

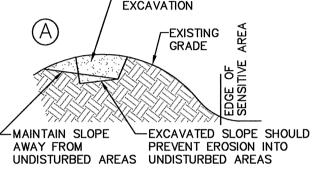


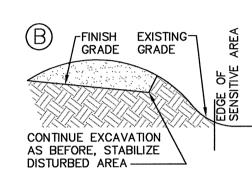
FILL PROCEDURE

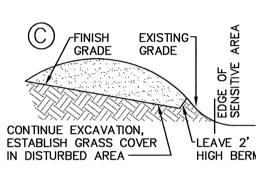




SLOPE PROFILES







NOT TO SCALE

FLOW

×2° MINUS

SURFACE BACKFILL

CRUSHED STONE

O' MAXIMUM SPACING WITH

6' MAXIMUM SPACING WITHOUT

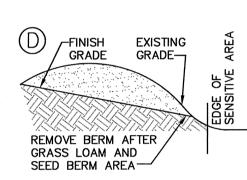
WIRE SUPPORT FENCE

WIRE SUPPORT FENCE

9" MAX.

STORAGE H

12" MIN.





#### DRAWING ISSUED FOR:

☐ CONSTRUCTION RECORD

THIS DRAWING IS NOT INTENDED TO SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, NOR IS IT INTENDED TO DEFINE ALL CONSTRUCTION CONTRACTOR RESPONSIBILITIES/AREAS OF JURISDICTION.

6.	05/19/05	MS	DEM	SPECIAL PERMIT/SITE PLAN REVIEW MODIFICATION
5.	07/15/04	MS	BNC	PER TOWN COMMENTS
4.	07/06/04	MS	BNC	PER TOWN COMMENTS
3.	3/26/04	NMP	BNC	PER TOWN COMMENTS
2.	03/18/04	MS	BNC	LOT CONFIGURATION
1.	02/20/04	MS	BNC	PER JNEI LETTER DATED 02/05/04



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39 MAIN STREET, SUITE 301. AYER, MA 01432 CIVIL & STRUCTURAL ENGINEERING • LAND SURVEYING & LAND PLANNING VOICE: 978.772.1590 FAX: 978.772.1591 www.gpr-inc.com

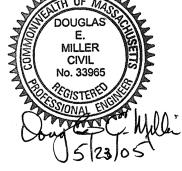
#### COMMERCIAL DEVELOPMENT

STORMWATER POLLUTION PREVENTION PLAN

785 BOSTON ROAD GROTON, MA

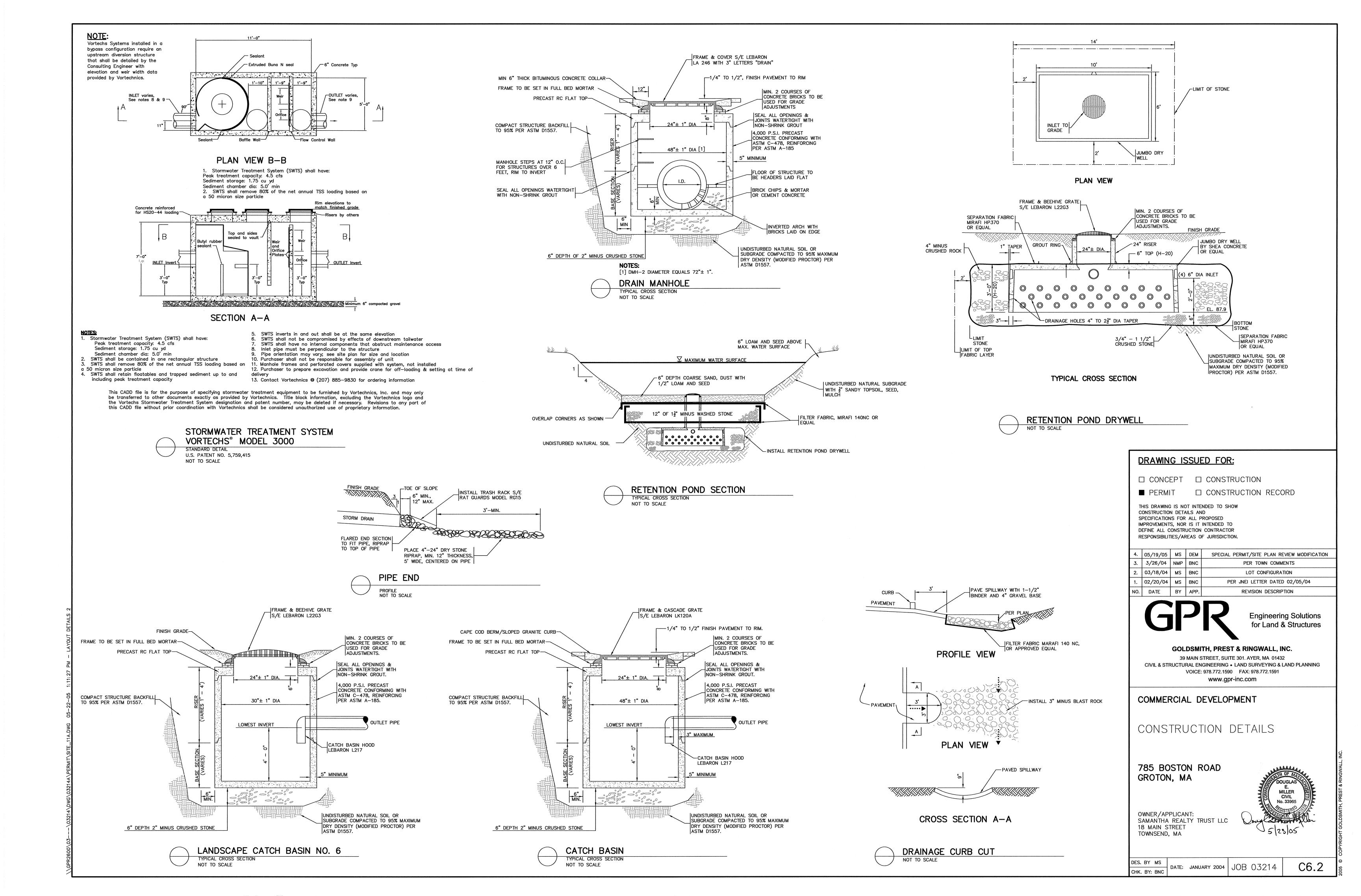


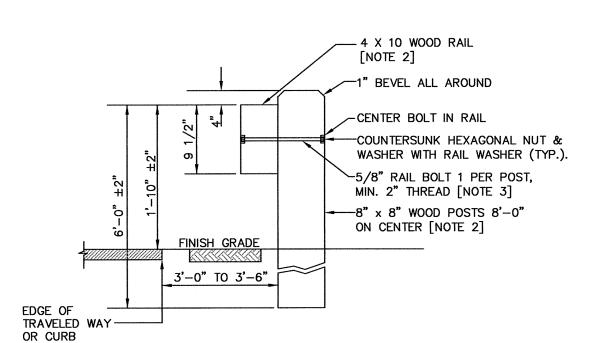
SAMANTHA REALTY TRUST LLC 18 MAIN STREET TOWNSEND, MA



DATE: JANUARY 2004 | JOB 03214 CHK. BY: BNC

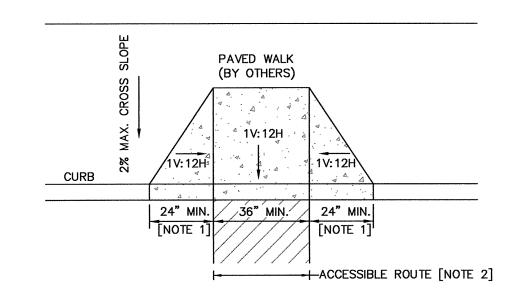
C5.1





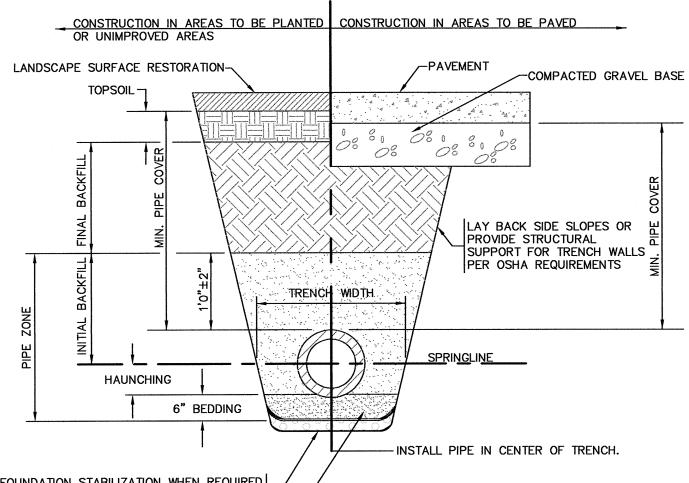
[1] ALL HARDWARE SHALL BE HIGH STRENGTH GALVANIZED STEEL. [2] ALL WOOD COMPONENTS SHALL BE PRESSURE TREATED SOUTHERN YELLOW PINE. [3] SPLICE AT POST ONLY, 4 BOLTS EACH SPLICE POST.

WOOD GUARD RAIL TYPICAL CROSS SECTION NOT TO SCALE



[1] CURB SLOPED AT 1V:12H. [2] CURB FLUSH WITH ACCESSIBLE ROUTE FINISH SURFACE.

HANDICAP ACCESSIBLE RAMP TYPICAL PLAN VIEW NOT TO SCALE



FOUNDATION STABILIZATION WHEN REQUIRED BY ENGINEER. OTHERWISE, PLACE BEDDING ON UNDISTURBED NATURAL SOIL

SHAPE BEDDING BY HAND TO FIT BOTTOM OF PIPE, INSTALL PIPE ON STABLE BEDDING WITH UNIFORM BEARING UNDER FULL LENGTH OF PIPE BARREL

TRENCH WIDTH:

[1] MINIMUM WIDTH OF TRENCH MEASURED AT SPRINGLINE OF PIPE, INCLUDING ANY NECESSARY SHEATHING:

PIPE I.D. WIDTH

LESS THAN 21" O.D. + 12"

21" TO 42" O.D. + 24" GREATER THEN 42" O.D. + 30"

MINIMUM PIPE COVER:

MINIMUM PIPE C [1] MINIMUM SOIL C		OF PIPE.	
PIPE MATERIAL	HDPE, PVC	RC, DI	
WATER	5' - 0"	5' - 0"	
SEWER	4' - 0"	4' - 0"	
DRAIN	3' - 0"	1' -0"	

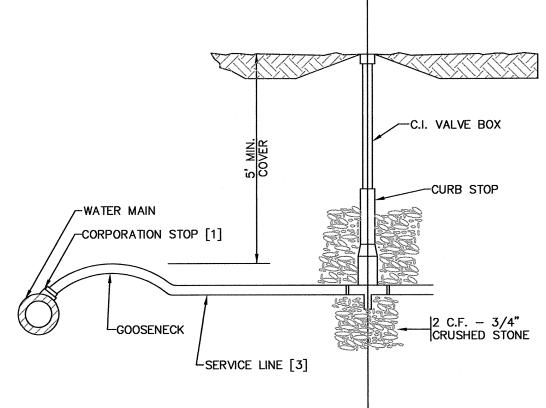
MATERIAL KEY NOTES (SEE TABLE BELOW): [1] PLACE 2" MINUS CRUSHED STONE.

[2] PLACE 1/2" MINUS SAND BORROW (MHD M1.04.1), AT OPTIMUM MOISTURE IN HORIZONTAL 8" DEEP LOOSE LAYERS, COMPACT TO 95% PER ASTM D-1557 MODIFIED PROCTOR [3] IN PLANTED OR UNIMPROVED AREAS, USE 2-INCH MINUS

ON-SITE EXCAVATED MATERIAL. COMPACT TO 95% PER ASTM D-1557. IN PAVED AREAS, OBTAIN ENGINEER APPROVAL OF 2-INCH MINUS ON-SITE EXCAVATED MATERIALS.

FOUNDATION, BEDDING AND BACKFILL MATERIALS						
PIPE MATERIAL	HDP, PVC	RC, DI				
FOUNDATION STABILIZATION	[NOTE 1]	[NOTE 1]				
BEDDING	[NOTE 2]	[NOTE 2]				
HAUNCHING	[NOTE 2]	[NOTE 2]				
INITIAL BACKFILL	[NOTE 2]	[NOTE 2]				
FINAL BACKFILL	[NOTE 3]	[NOTE 3]				

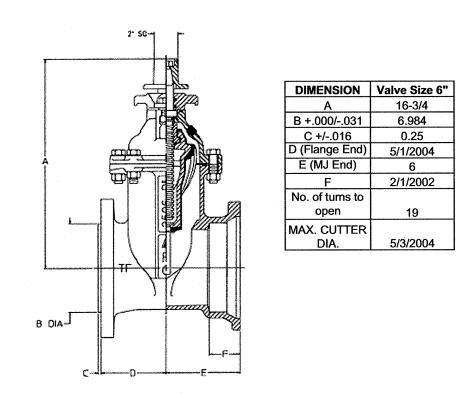




[1] WATER SERVICES LARGER THAN 1" ARE TO BE RESTRAINED TO MAIN WITH APPROVED SADDLE. [2] COORDINATE BUILDING CONNECTION WITH PLUMBING DRAWINGS.

[3] ALL MATERIALS PER MUNICIPAL STANDARDS.

WATER SERVICE TYPICAL CROSS SECTION NOT TO SCALE



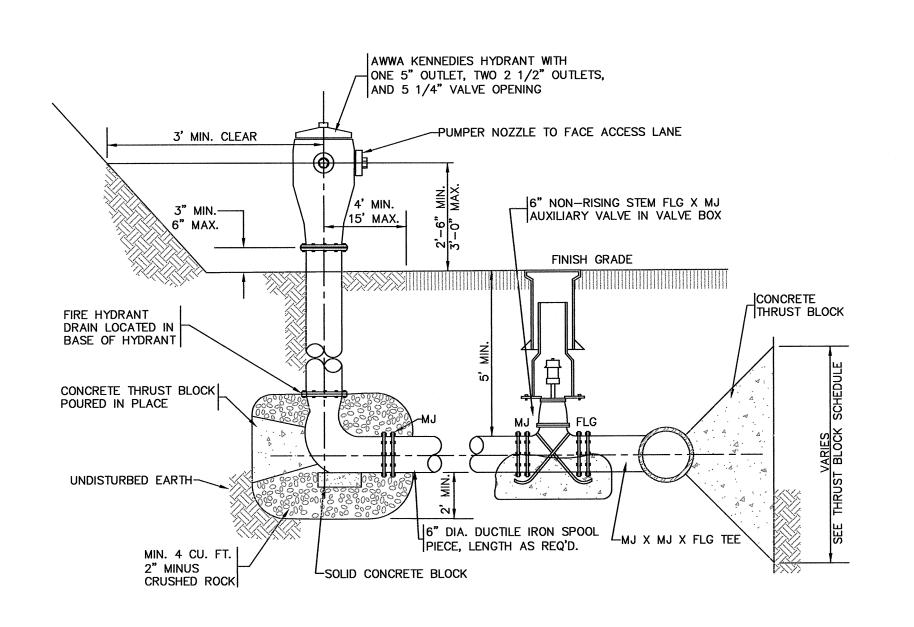
AFC SERIES 2500 GATE VALVE TYPICAL CROSS SECTION NOT TO SCALE

	ADDIA SILL GOLEDAGE TAGAL	
COURSE THICKNESS	APPLY FULL COVERAGE TACK COAT AT JOINT [NOTE 3].	COMPACTION REQUIREMENT
1" TOP		—TEST PER AASHTO T166, [NOTE 1] —TEST PER AASHTO T166, [NOTE 1]
4" UNTREATED BASE		95% TEST PER ASTM D1557
8" UNTREATED SUBBASE	36. 36. 36. 36.	95% TEST PER ASTM D1557
) SUBGRADE -		95% TEST PER ASTM D1557

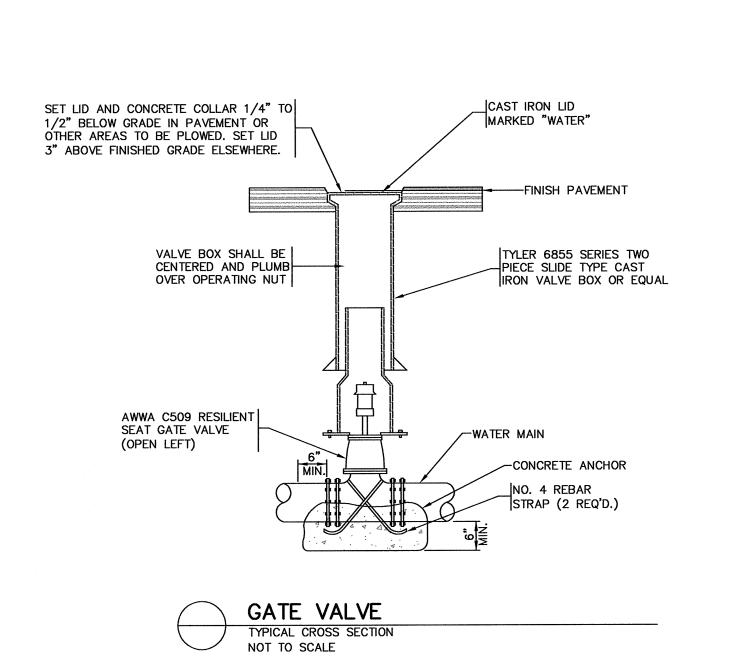
MATERIAL	SPECIFICATION	MAXIMUM AGGREGATE OR PARTICLE SIZE (IN.)
TOP - BITUMINOUS CONCRETE	MHD M3.11.03 CLASS I, TYPE I-1	1/2
BINDER — BITUMINOUS CONCRETE	MHD M3.11.03 CLASS I, TYPE I-1	3/4
BASE - GRAVEL BORROW [NOTE 2]	MHD M1.03.0 TYPE C	2
SUBBASE - GRAVEL BORROW	MHD M1.03.0 TYPE C	2
UNSUITABLE SUBGRADE - ORDINARY BORROW	ON-SITE EXCAVATED MATERIAL	12

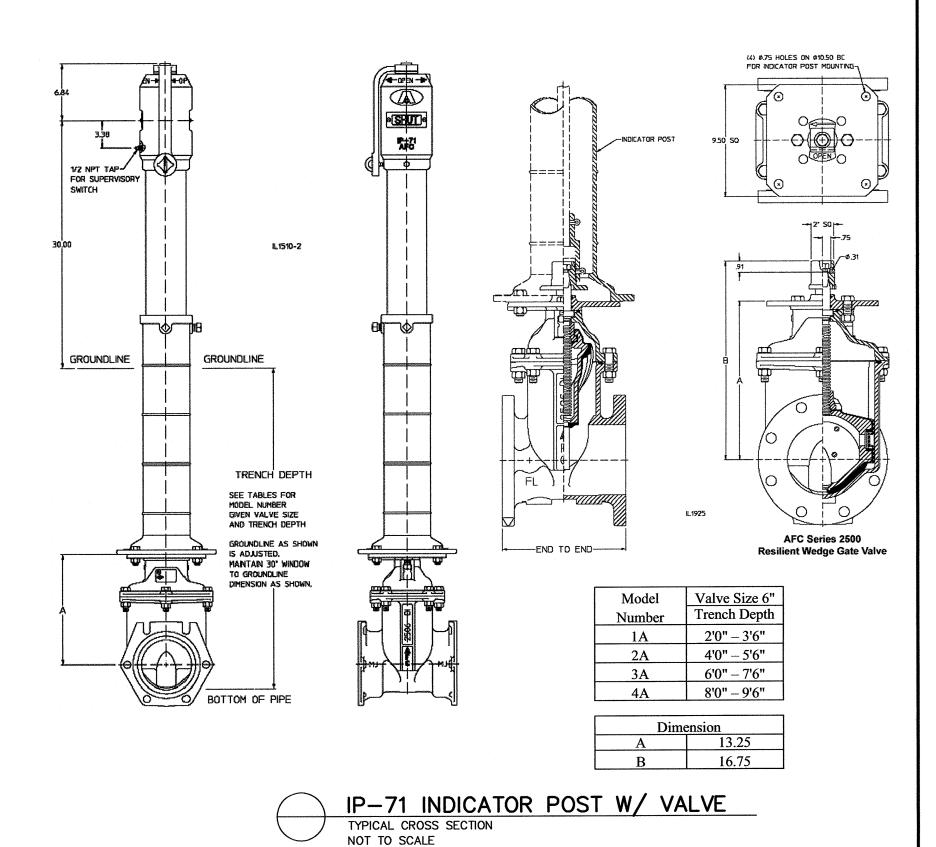
[1] COMPACT TO TEST AVERAGE OF 95% NO TEST LOWER THAN 93%. 2] ACCEPTABLE SUBSTITUTE MATERIAL: 3/4" MINUS DENSE GRADED CRUSHED STONE. [3] EXISTING PAVEMENT SHALL BE SAW CUT VERTICALLY AT FINAL JOINT LOCATIONS.

BITUMINOUS CONCRETE PAVEMENT TYPICAL CROSS SECTION NOT TO SCALE









**DRAWING ISSUED FOR:** 

☐ CONCEPT ☐ CONSTRUCTION

☐ CONSTRUCTION RECORD

THIS DRAWING IS NOT INTENDED TO SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, NOR IS IT INTENDED TO DEFINE ALL CONSTRUCTION CONTRACTOR RESPONSIBILITIES/AREAS OF JURISDICTION.

4.	05/19/05	MS	DEM	SPECIAL PERMIT/SITE PLAN REVIEW MODIFICATION
3.	3/26/04	NMP	BNC	PER TOWN COMMENTS
2.	03/18/04	MS	BNC	LOT CONFIGURATION
1.	02/20/04	MS	BNC	PER JNEI LETTER DATED 02/05/04
NO	DATE	BY	APP.	REVISION DESCRIPTION

**Engineering Solutions** for Land & Structures

GOLDSMITH, PREST & RINGWALL, INC.

39 MAIN STREET, SUITE 301. AYER, MA 01432 CIVIL & STRUCTURAL ENGINEERING • LAND SURVEYING & LAND PLANNING VOICE: 978.772.1590 FAX: 978.772.1591 www.gpr-inc.com

COMMERCIAL DEVELOPMENT

CONSTRUCTION DETAILS

785 BOSTON ROAD GROTON, MA

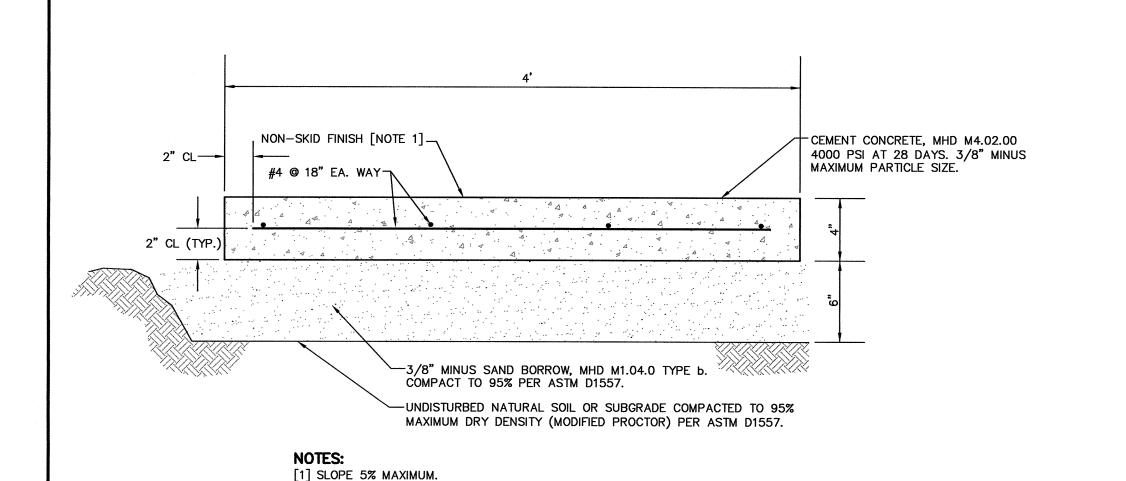
OWNER/APPLICANT: SAMANTHA REALTY TRUST LLC 18 MAIN STREET TOWNSEND, MA

DATE: JANUARY 2004

MILLER CIVIL

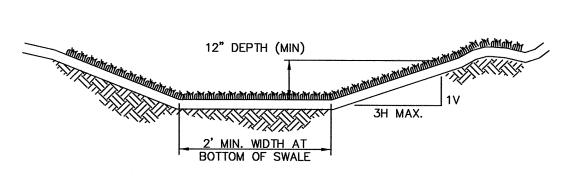
No. 33965

JOB 03214



CEMENT CONCRETE WALK
TYPICAL CROSS SECTION

NOT TO SCALE

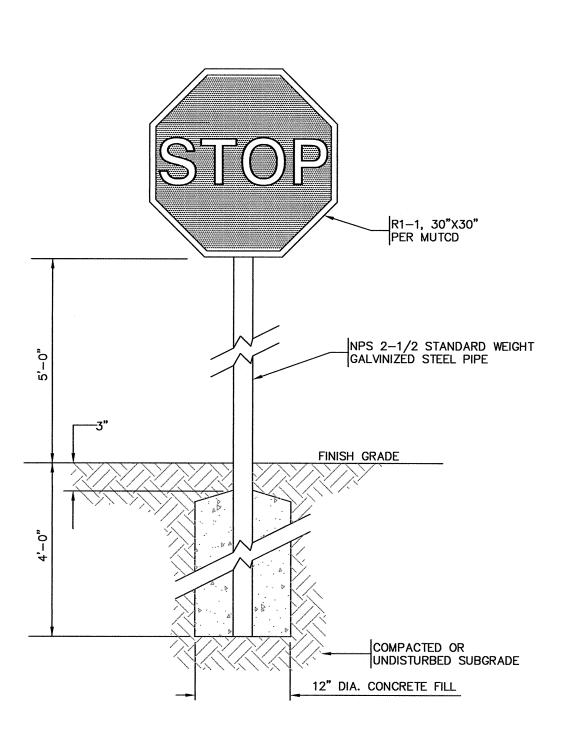


WATER QUALITY SWALE

PROFILE

NOT TO SCALE

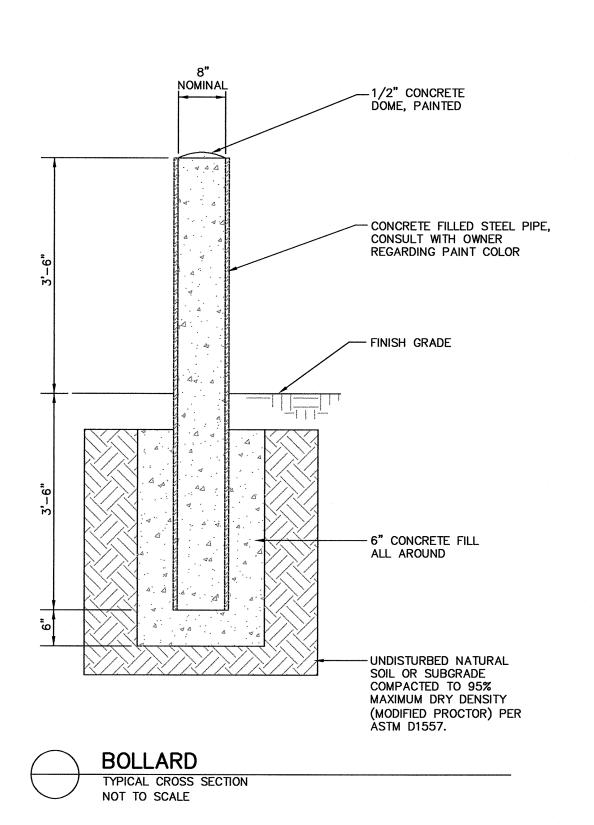
[2] CONTROL JOINT EVERY 5 FEET EXPANSION JOINT EVERY 50 FEET.



STOP SIGN

ELEVATION

NOT TO SCALE



- WELD ON END CAP

12" x 18" SIGN. WHITE IMAGE

BACKROUND. SUBMIT ANCHORING HARDWARE FOR APPROVAL

12" x 6" SIGN. WHITE LETTERS ON

HARDWARE FOR APPROVAL

NPS 2-1/2 STANDARD WEIGHT GALVINIZED STEEL PIPE

COMPACTED OR UNDISTURBED SUBGRADE

12" DIA. CONCRETE FILL

FINISH GRADE

BLUE BACKROUND. SUBMIT ANCHORING

AND LETTERS ON BLUE

HANDICAPPE

**PARKING** 

REQUIRED VIOLATORS WILL BE FINED

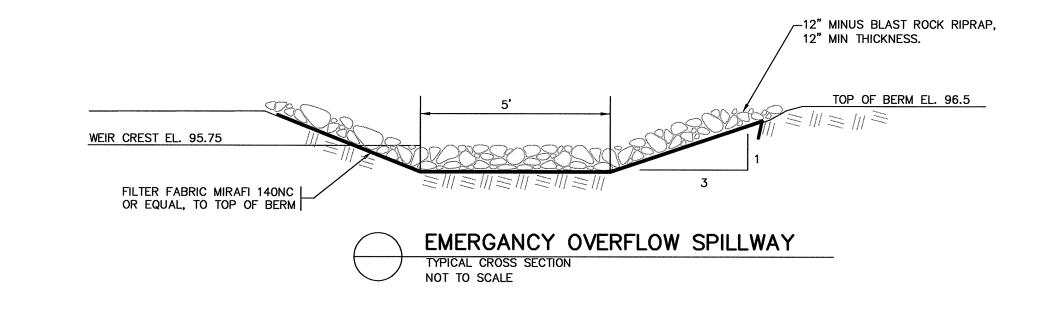
VAN

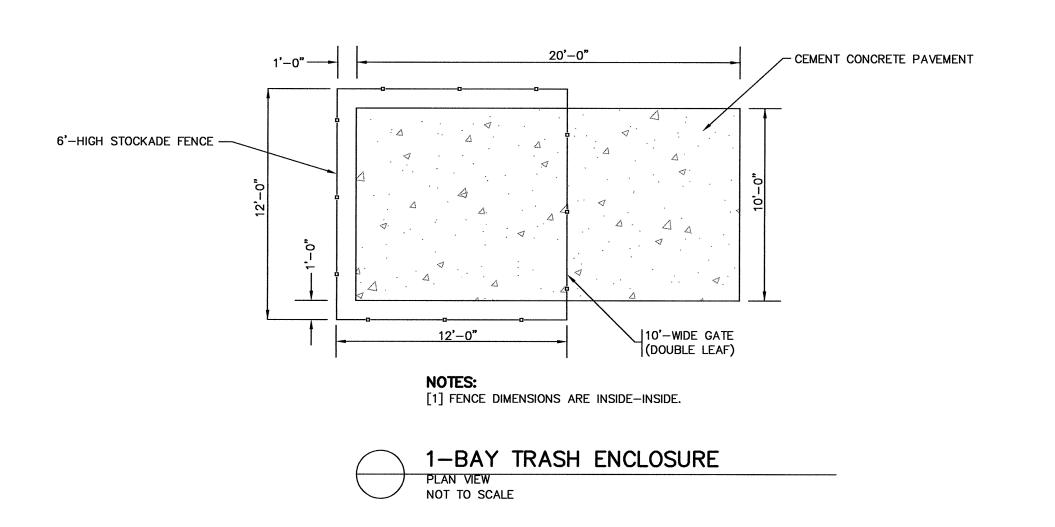
**ACCESSIBLE** 

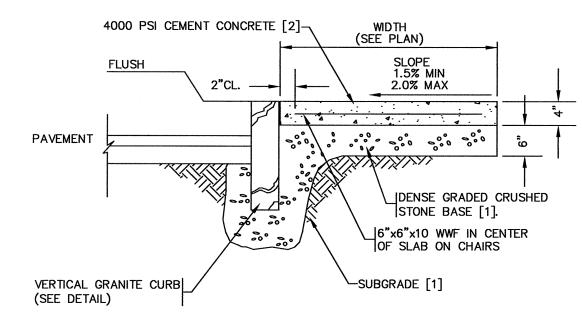
HANDICAP PARKING SIGN

NOT TO SCALE

STATE PERMIT





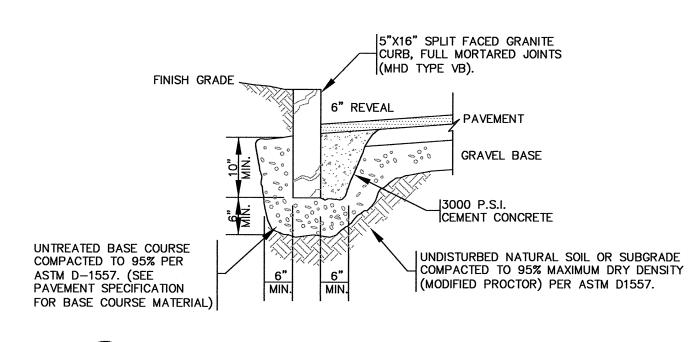


NOTES:
[1] COMPACT TO 95% PER ASTM D-1556
[2] CONTROL JOINT EVERY 5 LF, EXPANSION JOINT EVERY 50 LF.

V.G. CURB/CEMENT CONCRETE WALK

TYPICAL CROSS SECTION

NOT TO SCALE



VERTICAL GRANITE CURB

TYPICAL CROSS SECTION

NOT TO SCALE

#### **DRAWING ISSUED FOR:**

☐ CONCEPT ☐ CONSTRUCTION

■ PERMIT ☐ CONSTRUCTION RECORD

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#### COMMERCIAL DEVELOPMENT

CONSTRUCTION DETAILS

785 BOSTON ROAD GROTON, MA

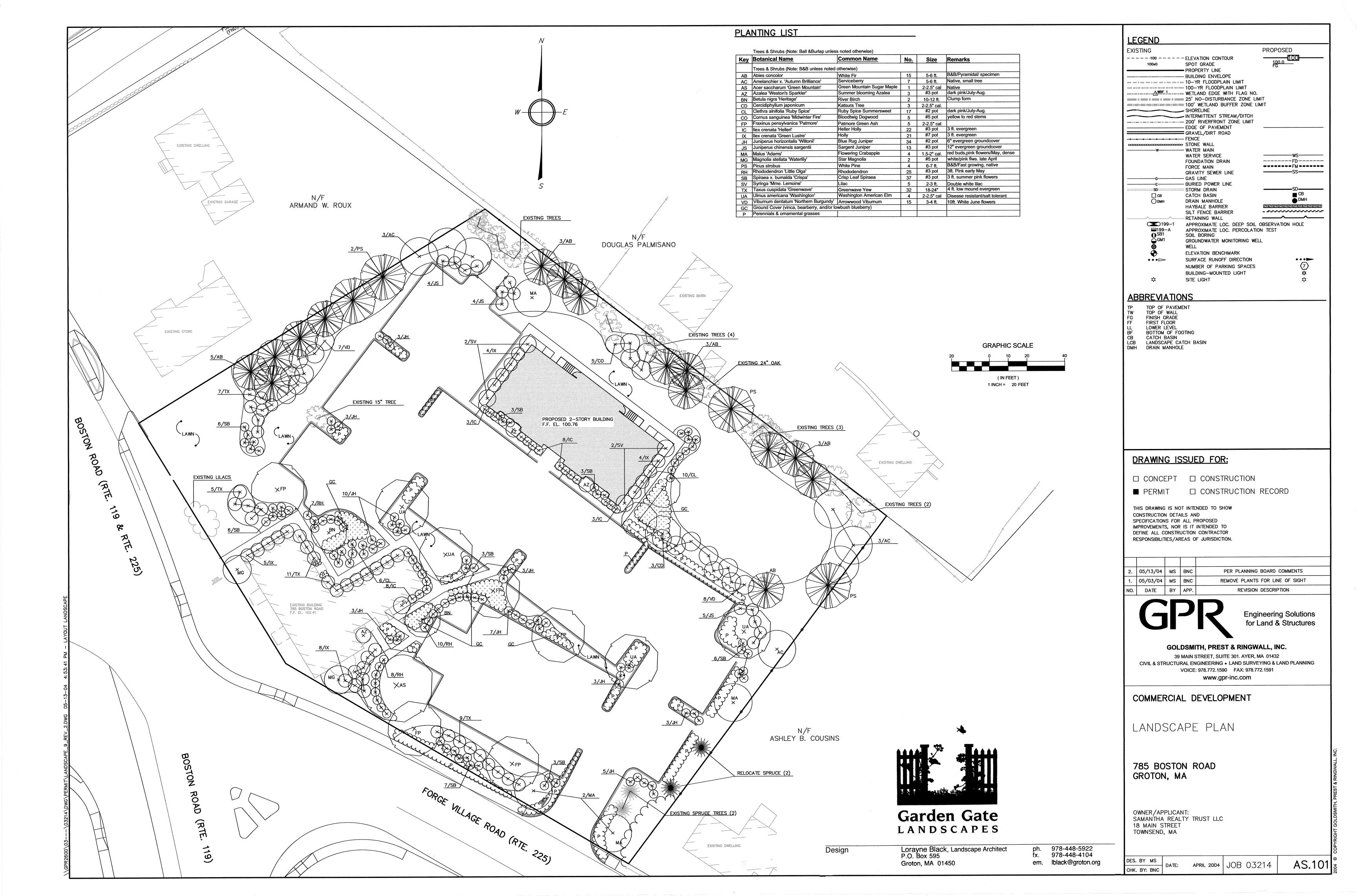
CHK. BY: BNC

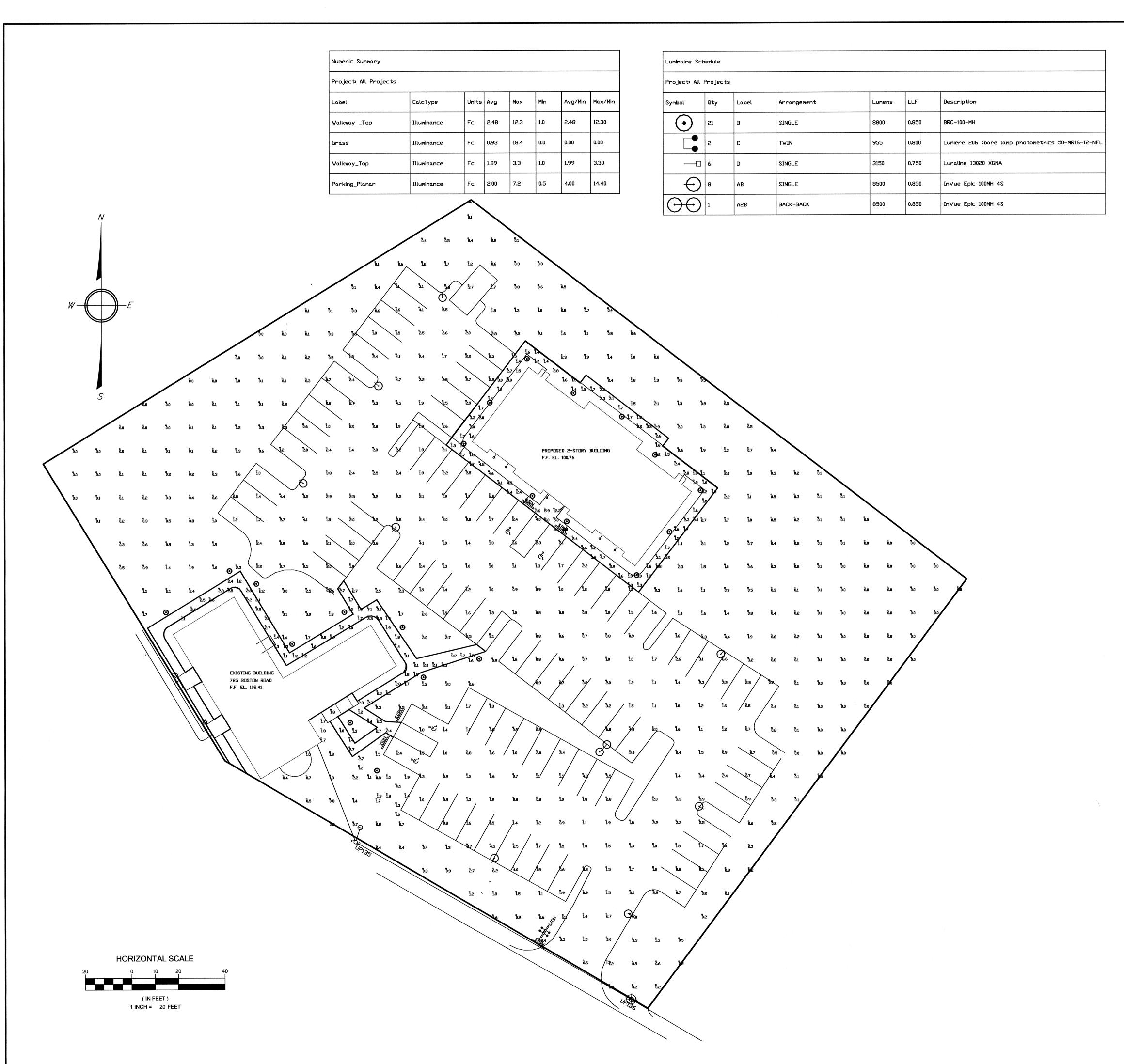


OWNER/APPLICANT: SAMANTHA REALTY TRUST LLC 18 MAIN STREET TOWNSEND, MA

DATE: JANUARY 2004 JOB 03214

4 C6.3





Project: All	Projects					
SeqNo	Label	x	Υ	z	Orlent	Tilt
2	В	-13.25	89	12	0	0
11	В	87.5	143.5	12	0	0
12	В	94	51,25	12	0	0
13	В	98.75	161	12	0	0
14	В	114.75	179.75	12	0	0
15	В	117	121	12	0	0
21	В	131.75	110	12	0	0
22	В	134.75	165	12	0	0
24	В	161.75	87	12	0	0
25	В	169.75	138.5	12	0	0
26	В	189.25	123.25	12	0	0
29	В	155.536	154.889	12	0	0
30	В	175.908	105.487	12	0	0
43	В	49.956	3.493	12	0	0
54	В	61.069	64.846	12	0	0
55	С	122.143	-65.99	12	327.738	0
56	С	121.508	-65.567	12	144.871	0
57	ם	101.528	138.876	12	235.009	0
58	ם	106.642	134.899	12	235.009	0
59	ם	124.256	121.641	12	235.009	0
60	ם	130.506	116.717	12	235.009	0
61	D	146.984	104.027	12	235.009	0
62	D	153.423	99.103	12	235.009	0
45	В	70.061	43.394	12	0	0
50	В	38.51	24.024	12	0	0
51	В	13.603	57.748	12	0	0
52	В	36.079	71.378	12	0	0
53	В	-1.702	83.477	12	0	0
79	АВ	16.802	127.944	12	320	0
80	АВ	56.845	106.012	12	50	0
69	АВ	99.278	-36.078	12	60	0
73	АВ	199.308	54.773	12	230	0
75	АВ	159.75	-59.351	12	147.487	0
81	AB	190.308	-13.319	12	147.487	0
77	A2B	147.286	12.819	12	45	0
82	В	-40.581	71.372	12	0	0
78	AB	49.261	169.681	12	320	0
83	AB	78.287	208.231	12	277.254	0



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COPER	Cooper Lighting
ect '785 Boston Road Groton, MA	Reflex Lighting Group Greg Walson
Project # : 04009	75C
Scale:  1" =  Drawing:	20' N
Cooper Ligh Applications Eng 1121 Highway 74 770-486-4596 770-486-4599 e-mail: applications@coo	jineering South fax

# PERMIT PLAN

# 785 BOSTON ROAD GROTON, MA

# SHEET INDEX

C1.1 TITLE SHEET

C2.1 EXISTING CONDITIONS AND DEMOLITION PLAN

C3.1 SITE LAYOUT PLAN

A-1 FLOOR PLAN FIRST FLOOR PLAN

A-2 FLOOR PLAN SECOND FLOOR PLAN

A-3 FLOOR PLAN BASEMENT FLOOR PLAN A-4 FRAMING PLAN SECOND FLOOR FRAMING

ROOF / CEILING FRAMING PLAN

A-5 EXTERIOR ELEVATIONS EXISTING BUILDING

A-6 EXTERIOR ELEVATIONS EXISTING BUILDING

# SITE DATA

LOT AREA:

1.71± AC. (74,282 SF)

WATER SUPPLY: MUNICIPAL SEWAGE DISPOSAL ON-SITE SEWAGE DISPOSAL SYSTEM

**ZONING DISTRICT: BUSINESS B-1** 

**OVERLAY DISTRICT:** 

**DEP DISTRICT:** 

WRPD III NON-COMMUNITY IWPA HAS BEEN REMOVED

# PLAN REFERENCES

"COMMERCIAL DEVELOPMENT" 788 BOSTON ROAD GROTON, MA PREPARED FOR NAM HANG, LLC BY GOLDSMITH. PREST. AND

2. "COMMERCIAL DEVELOPMENT" 785 BOSTON ROAD GROTON, MA PREPARED FOR SAMANTHA REALTY TRUST LLC BY GOLDSMITH, PREST, AND RINGWALL INC. DATED JANUARY, 2004 REVISED THROUGH 5/19/07.

#### **ASSESSORS REFERENCE** ASSESSORS MAP 133, LOT 11

# **GENERAL NOTES**

1. LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS/SYSTEMS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS/SYSTEMS, WHETHER OR NOT SHOWN HEREON.

2. UNLESS OTHERWISE SHOWN, ALL NEW UTILITIES SHALL BE UNDERGROUND.

3. BURIED UTILITIES SHALL BE INSTALLED IN ACCORDANCE WITH THEIR RESPECTIVE COMPANY SPECIFICATIONS.

4. CONSTRUCTION LAYOUT OF BUILDING AND SITE IMPROVEMENTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR. LOCATIONS OF EXISTING FEATURES OR PROPOSED IMPROVEMENTS DERIVED BY SCALING DRAWINGS MAY NOT BE ACCURATE, PROPERTY LINES SHOWN HEREON ARE APPROXIMATE, SEE PLAN REFERENCE HEREON.

5. SAFETY MEASURES, CONSTRUCTION METHODS, AND CONTROL OF WORK SHALL BE RESPONSIBILITY OF CONTRACTOR.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT OF ANY EXISTING UTILITY OR STRUCTURE DAMAGED DURING CONSTRUCTION THAT ARE NOT DESIGNATED FOR DEMOLITION AND/OR REMOVAL HEREON. DAMAGED UTILITY OR STRUCTURE SHALL BE REPAIRED TO THE SATISFACTION OF THEIR RESPECTIVE OWNERS.

7. ANY INTENDED REVISION OF THE HORIZONTAL AND/OR VERTICAL LOCATION OF IMPROVEMENTS TO BE CONSTRUCTED AS SHOWN HEREON SHALL BE REVIEWED AND APPROVED BY ENGINEER PRIOR TO IMPLEMENTATION.

8. CONTRACTOR SHALL NOTIFY ENGINEER UPON COMMENCEMENT OF CONSTRUCTION IN ORDER TO ENSURE THAT REQUIRED INSPECTIONS ARE PERFORMED IN A TIMELY AND EFFICIENT MANNER.

9. CONTRACTOR SHALL PROMPTLY NOTIFY ENGINEER UPON DISCOVERY OF ANY UNFORESEEN SURFACE OR SUBSURFACE CONDITIONS THAT MAY IMPACT SITE CONSTRUCTION.

10. WHERE EXISTING UTILITY LINES/STRUCTURES ARE TO BE CUT/BROKEN DOWN/ABANDONED, LINES/STRUCTURES SHALL BE PLUGGED/CAPPED/FILLED IN ACCORDANCE WITH UTILITY OWNER REQUIREMENTS.

11. EROSION CONTROL MEASURES, SUCH AS SILT FENCE OR HAY BALES AS MAY BE SHOWN HEREON, SHALL BE INSTALLED BEFORE EARTH DISTURBANCE OCCURS WITHIN BUFFER ZONE, AND SHALL SERVE AS THE LIMIT OF WORK.

12. WHERE THE WORD "INSTALL" IS USED HEREIN, IT IS INTENDED TO DIRECT CONTRACTOR TO "FURNISH, INSTALL, AND PLACE IN OPERATION" THE COMPONENT REFERRED TO.

13. LIMITS OF WORK SHALL BE STAKED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION.

14. WHERE SHOWN, CONSTRUCTION NOTES ARE INTENDED TO SUMMARIZE AND CLARIFY MAJOR ITEMS OF WORK. THESE NOTES SHOULD NOT BE CONSTRUED AS AN EXHAUSTIVE LISTING OF ALL WORK REQUIRED. CONTRACTOR SHOULD CONTACT ENGINEER WHEN FURTHER CLARIFICATION OF DEPICTED WORK IS DESIRED.

15. CONSTRUCTION OF FIRE AND DOMESTIC WATER SUPPLY IMPROVEMENTS SHALL CONFORM TO TOWN OF GROTON

16. NO DEBRIS, JUNK, RUBBISH OR OTHER NON-BIODEGRADABLE MATERIALS, FILL CONTAINING HAZARDOUS MATERIALS OR WASTES, OR STUMPS SHALL BE BURIED ON ANY LAND ON THIS SITE, OR LEFT ON ANY LOT OR ON THE STREET RIGHT OF WAY.

17. TOWN OF GROTON WATER DEPARTMENT'S RULES AND REGULATIONS, AND MATERIALS AND INSTALLATION SPECIFICATIONS

18. ALL EXTERNAL DISCONNECTS FOR UTILITIES SHALL BE LOCKED.

WILL GOVERN THE WATER UTILITY PORTIONS OF WORK HEREIN.

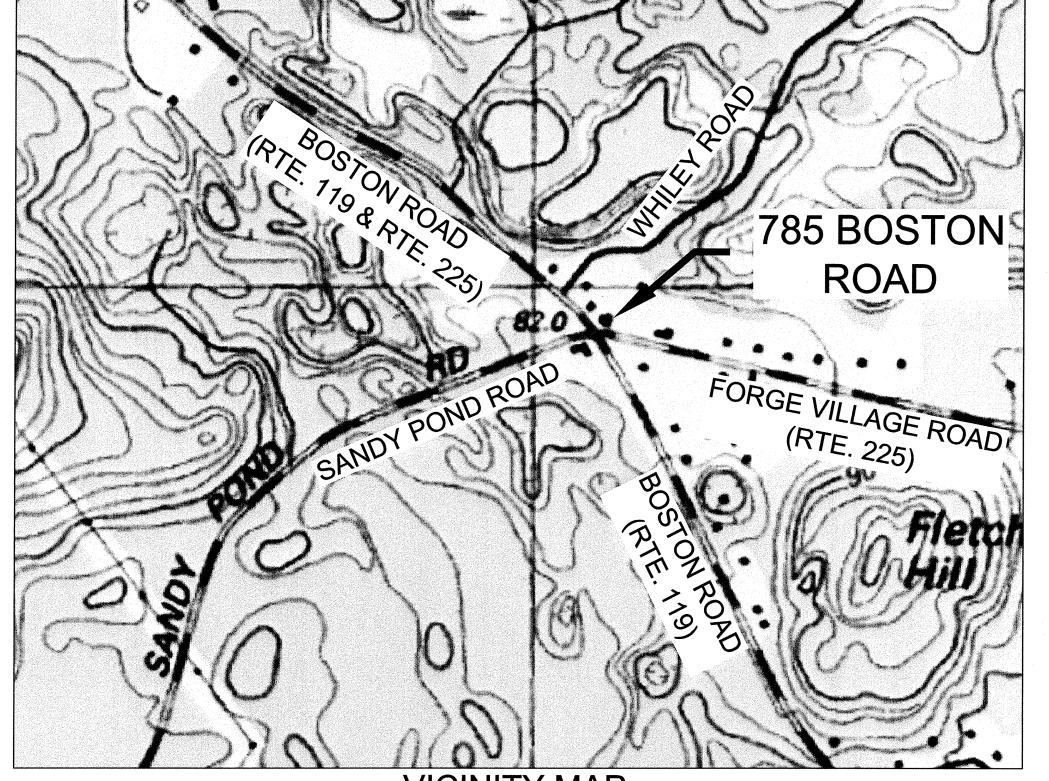
19. EXCEPT FOR HANDICAPPED SPACES, NO PARKING SPACES WILL BE EXCLUSIVELY RESERVED FOR INDIVIDUAL OR BUSINESS

# REGULATORY NOTES

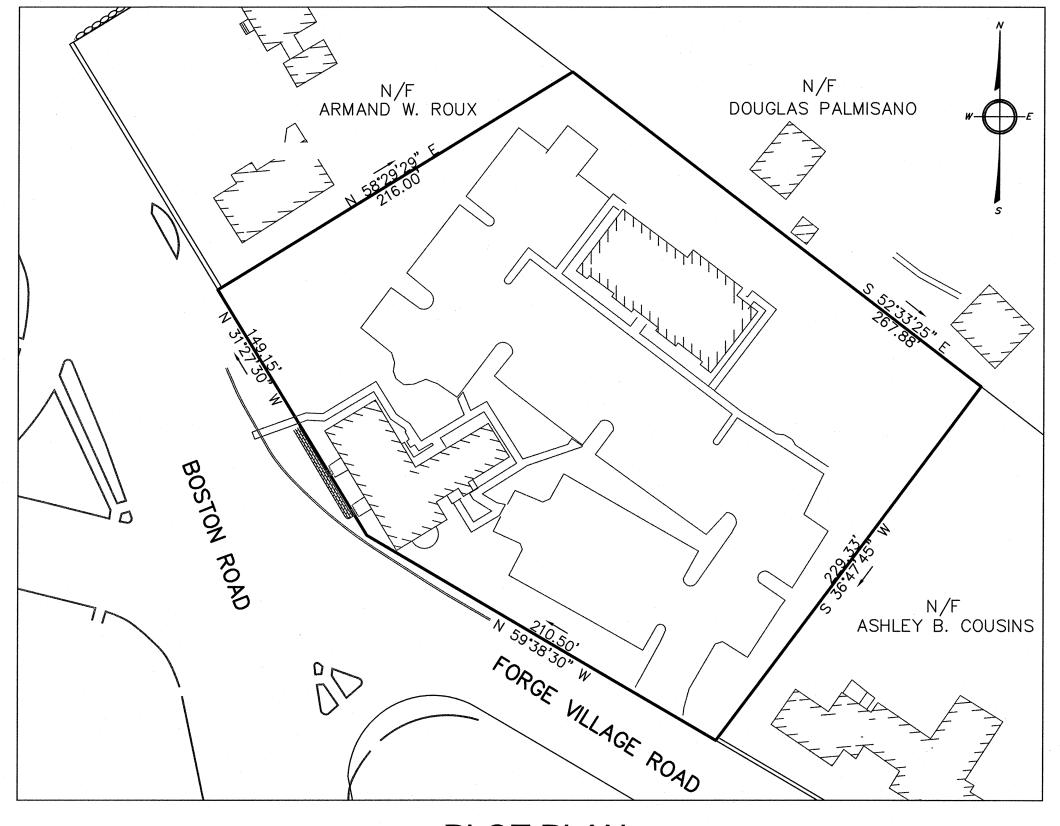
. CONTRACTOR SHALL CONTACT DIG-SAFE FOR UNDERGROUND UTILITY MARKING AT 888.344.7233 AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR SHALL GIVE TWENTY-FOUR (24)-HOUR NOTICE TO PERTINENT TOWN DEPARTMENTS BEFORE COMMENCING ANY WORK IN THE FIELD.

2. CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES. 3. CONTRACTOR SHALL BE AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF ANY WORK.

4. ALL WORK OUTSIDE OF BUILDING THAT IS LESS THAN 10 FEET FROM THE INSIDE FACE OF BUILDING FOUNDATION SHALL CONFORM WITH THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS, 248 CMR 2.00.



**VICINITY MAP** SCALE: 1" = 500'



**PLOT PLAN** SCALE: 1" = 50'

# ZONING

Parameter	Section [1]	Requirement	Remarks		
Zoning District	218-8	B-1	Business District		
Overlay District	218-30	see Note [2]	DEP Zone 3		
Proposed Use	218-13	allowed	Commercial Building: Retail, Food Service, Office		
Lot Area	218-20	none	No minimum for nonresidential uses		
Frontage	218-20	none	No minimum for nonresidential uses		
Lot Width	218-22.K	see Note [3]			
Yard					
Front	218-20	50 FT			
Side	218-20	15 FT			
Rear	218-20	15 FT			
Building Height	218-20	35 FT, 3 stories			
Building Coverage	218-20	25%	Maximum Lot Coverage		
Floor Area Ratio		none			
Open Space	345A-2A.(4)	25	% Minimum for lots< 3 acres		
Parking	218-23	Consult Parking Computation	one Table (41		
raining	218-23	Consult Faiking Computation	ons rable [4]		
Wetlands Setback	local bylaw	200' rivers; 100' wetlands	Chapter 215 (none on site)		
MDEP Riverfront Area			none on site		
FEMA Floodplain			Zone C (Area of minimal flooding)		
ACEC			none on site		
Zone 1 Protective Radius			none on site		
Mapped Zone 2			none on site		
IWPA		7,7,7	within mapped zone		

[1] Reference to section of Zoning Bylaw, where applicable.

[2] Section 218-30 Water Resource Protection District III (WRPD III).

[3] Not less than the frontage requirement shall be maintained for 50 FT measured perpendicular to a straight line connecting the 2 front lot corners, and at no point within the area from the front yard depth to principal dwelling shall the distance between the side lot lines be < 75% of

ction 218—23C: Required parking must be located on same premises as the activity it serves. Each parcel shall be credited with 10 on-street parking spaces if the parcel is served by the existing curb and sidewalk system (this on-street parking does not qualify as meeting parking requirements for Section 218—25A). Off—street parking, loading areas and access drives (if involving 6 or more parking spaces) shall be treated with bituminous or other paving material and illumination shall be arranged and screened if necessary to deflect light away from ajoining lots and abutting streets. Parking areas with 6 or more spaces to be designed so that no vehicle will be required to back into a public way to exit from space. At least 5% of the interior of any parking lot having 20 or more spaces shall be maintained with landscaping, including trees, in plots of at

SF=square feet; CF=cubic feet; FT=feet; GFA=gross floor area; AC=acres; PB=Planning Board; ZBA=Zoning Board of Appeals; IWPA=interim wellhead protection area; ACEC=Area of Critical Environmental Concern; FIRM=Flood Insurance Rate Map; MDEP=Massachusetts Dept of Environmental

# PARKING COMPUTATIONS

USE	FORMULA	VARIABLE	REQUIRED SPACES	EXISTING SPACES	PERMITED SPACES
Restaurant	5 minimum, plus 1 space per 2 seats	44 seats	27	27	27
Office	2 spaces plus 1 space per 180 SF GFA	6,680 SF	40	40	40
Salon (other service est.)	5 minimum, plus 1 space per 250 SF GFA	3,000 SF	17	17	17
TOTAL			84	84	84

# **COVERAGE COMPUTATIONS**

PARAMETER	AREA	AREA	FRACTION OF TOTAL	
	(ACRES)		LOT AREA (%)	
EXISTING CONDITION				
Lot Area	1.71	74,282	100%	
Building Footprint	0.16	6,918	9%	
Other Impervious Area	0.68	29,502	40%	
Total Impervious Coverage	0.84	36,420	49%	
Existing Open Space	0.87	37,862	51%	
PROPOSED CONDITION				
Lot Area	1.71	74,282	100%	
Building Footprint	0.17	7,392	10%	
Other Impervious Area	0.67	29,402	40%	
Total Impervious Coverage	0.84	36,794	49%	
Proposed Open Space	0.86	37,488	50%	

# **SURVEY NOTES:**

3. THE RESPONSIBILITY OF THE PROFESSIONAL LAND SURVEYOR IS LIMITED TO LOT BOUNDARY AND EXISTING TOPOGRAPHIC DATA ONLY

2. SEE PLAN # 40 OF 1971, MIDDLESEX NORTH DISTRICT REGISTRY OF DEEDS

4. TOPOGRAPHY SHOWN HEREON IS A COMPILATION OF PRE-CONSTRUCTION EXISTING CONDITIONS SURVEY AND CONSTRUCTION RECORD SURVEY AND SHOULD BE VERIFIED IN AREAS WHERE CONSTRUCTION IS PROPOSED.

PROFESSIONAL LAND SURVEYOR APPROVED BY THE GROTON PLANNING BOARD CHAIR APPLICATION FILED HEARING DATE PLAN APPROVED

THIS SITE PLAN APPROVAL DOES NOT NECESSARILY INDICATE COMPLIANCE WITH THE GROTON ZONING BYLAW

☐ CONSTRUCTION

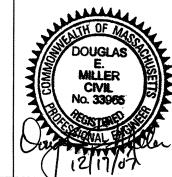
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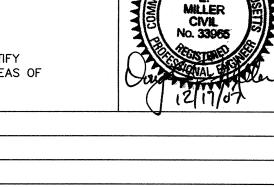
☐ CONCEPT

☐ CONSTRUCTION ■ PERMIT

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REVISION DESCRIPTION

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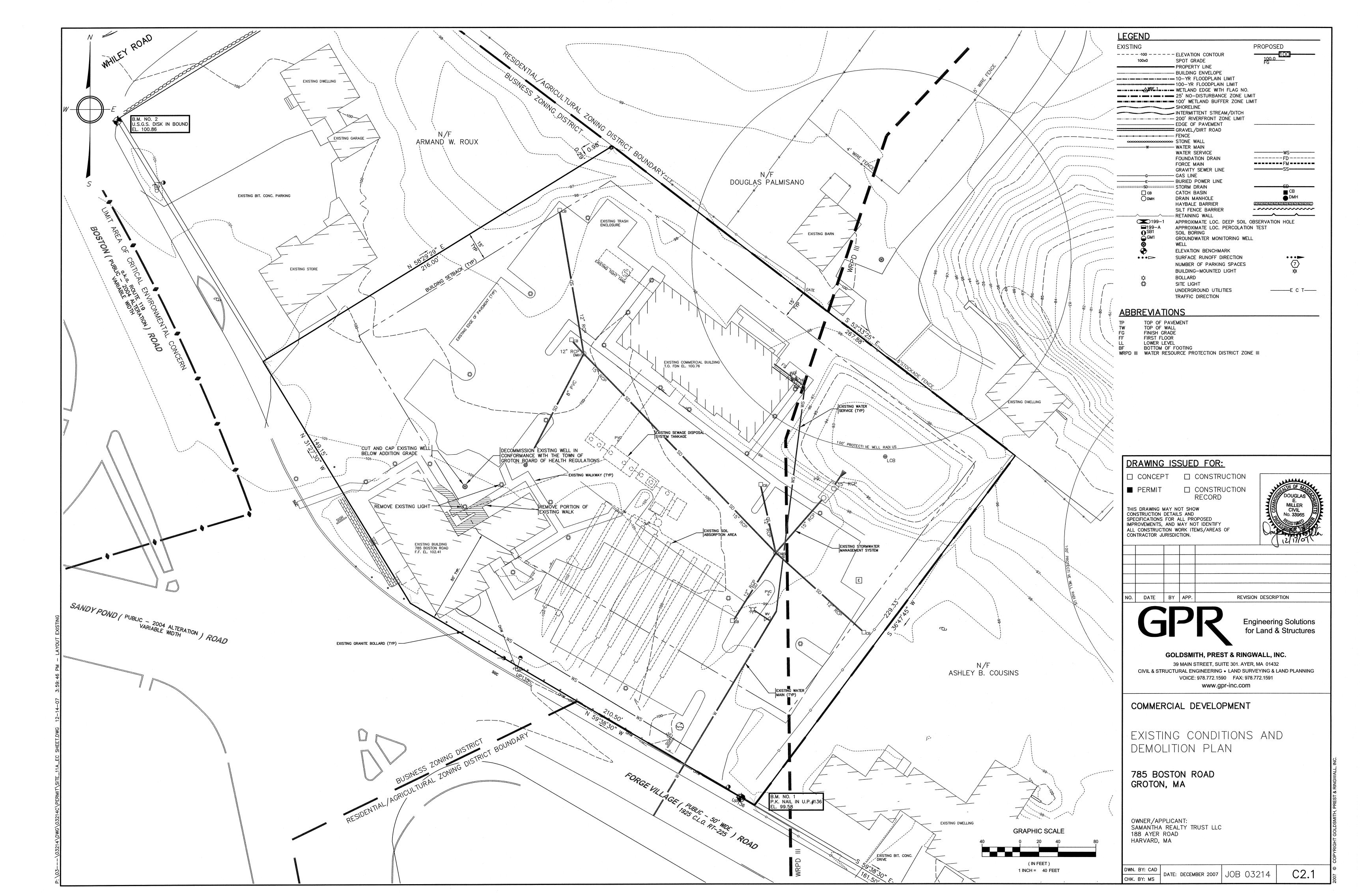
COMMERCIAL DEVELOPMENT

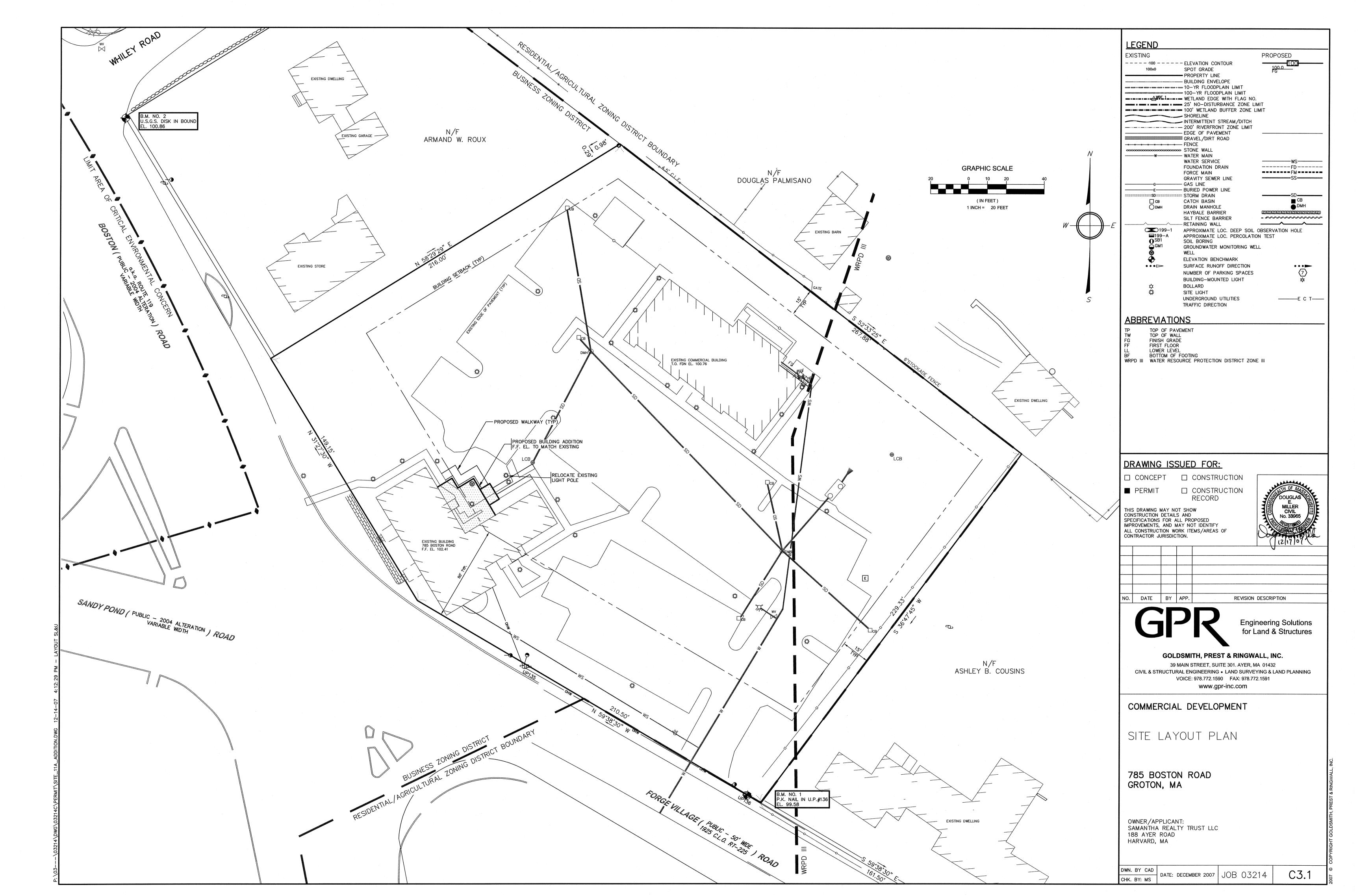
TITLE SHEET

785 BOSTON ROAD GROTON, MA

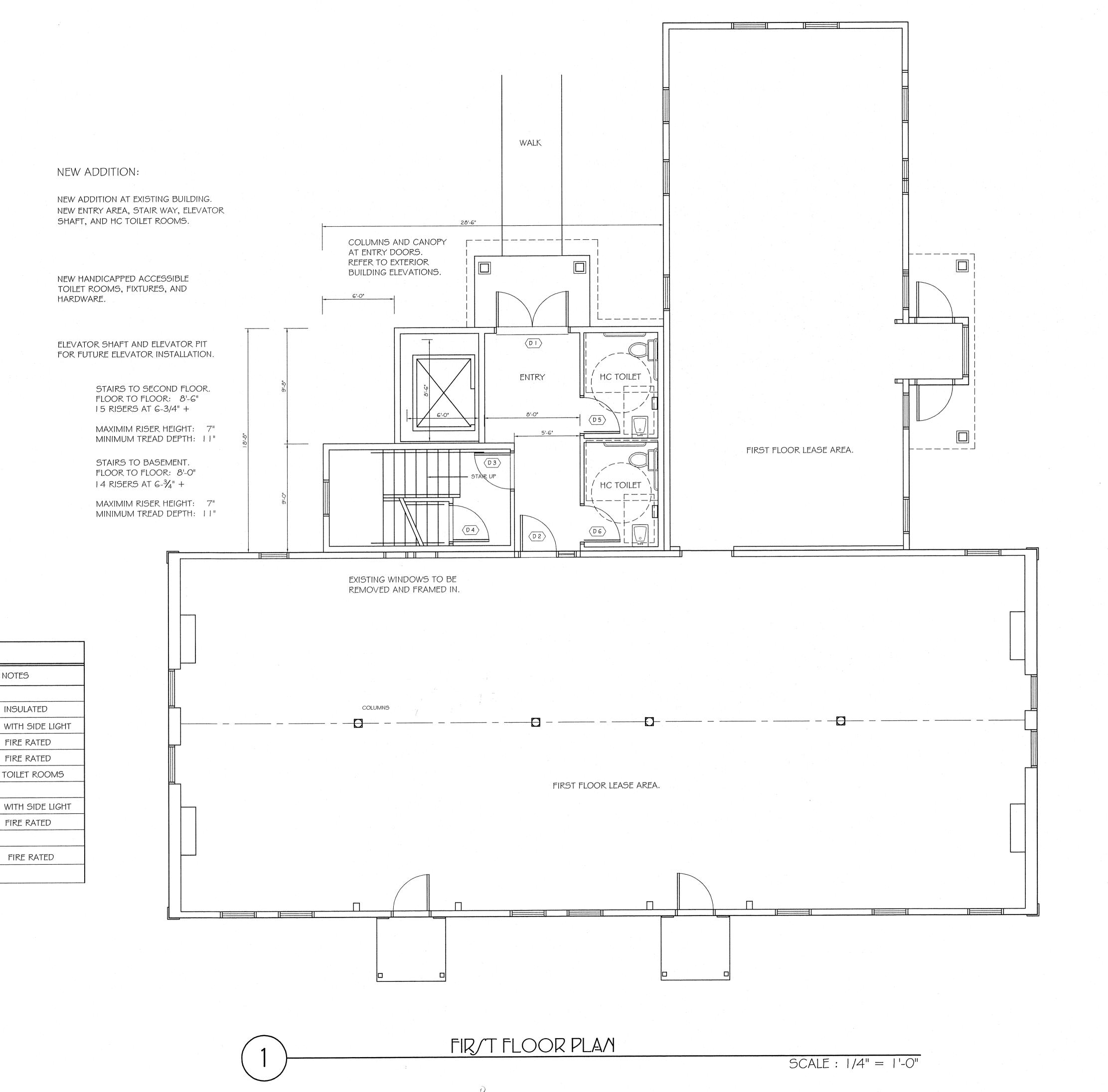
OWNER/APPLICANT: SAMANTHA REALTY TRUST LLC 188 AYER ROAD HARVARD, MA

DATE: DECEMBER 2007 JOB 03214









an'Donuts\DD-2006\JT-Groton O B JT.0623\JT.0623 A-1 B.dwq, 12/5/2007 12:19:48 PM

DOOR SCHEDULE

DIMENSIONS

PAIR 3'-0" x 7'-0"

3'-0" x 6'-8" x 1-3/4"

DOOR D-5, 6. 3'-0" x 6'-8" x 1-3/4"

DOOR D-21 3'-0" x 6'-8" x 1-3/4"

DOOR

DOOR D-1

DOOR D-3

DOOR D-3

DOOR DC-1

MATERIALS

STEEL & GLASS

S.C. WOOD

S.C. WOOD

S.C. WOOD

S.C. WOOD

S.C. WOOD

WOOD & GLASS

WOOD # GLASS

THRESHOLD

ALUM.

NONE

ALUM.

ALUM.

NONE

NONE

ALUM.

ALUM.

FRAME

STEEL

STEEL

STEEL

STEEL

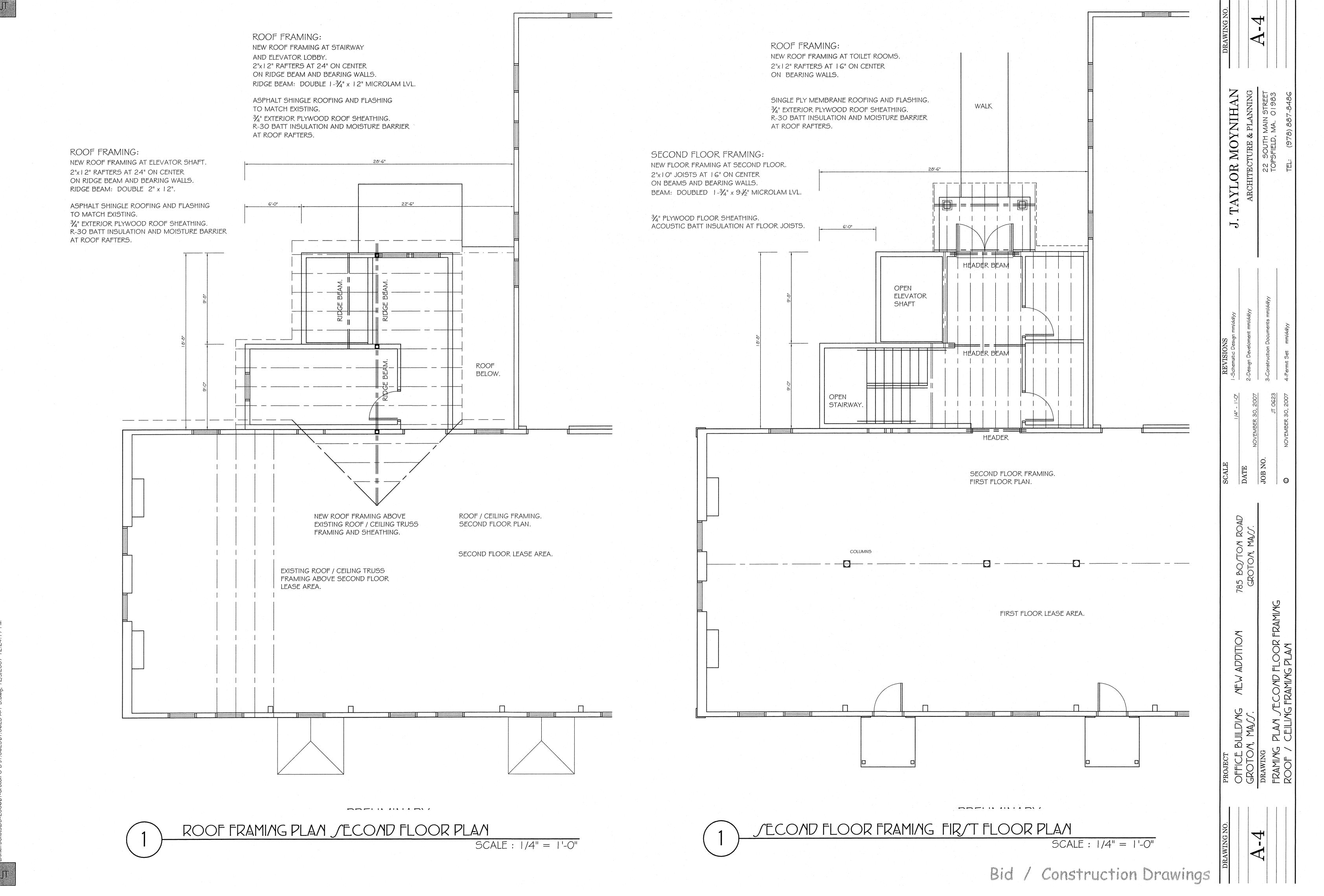
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Bid / Construction Drawings

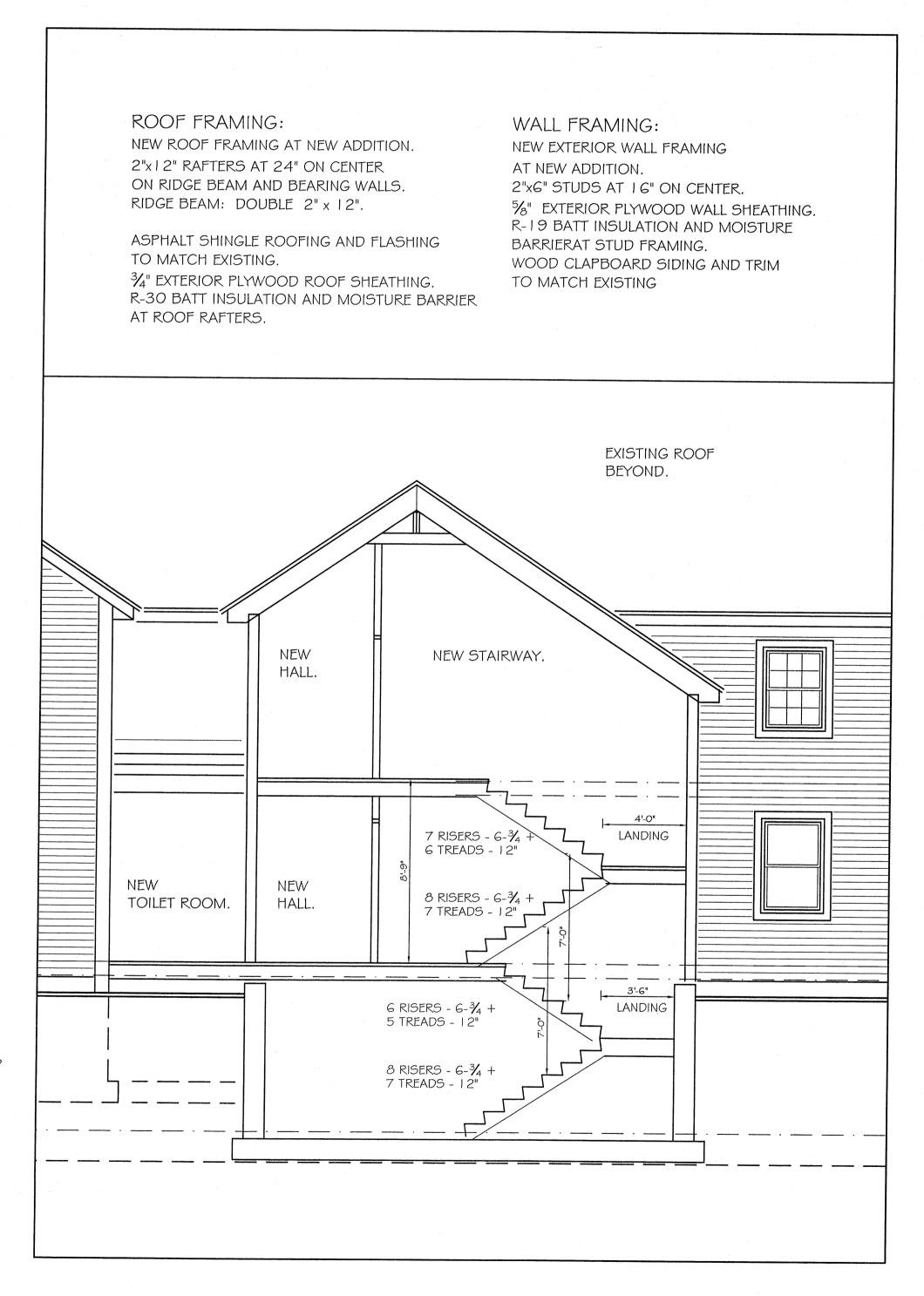
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FOUNDATIONS: FOUNDATION WALLS: NEW CONCRETE FOOTINGS AND FOUNDATION WALLS CONCRETE FOUNDATION WALLS: AT NEW ADDITION. 12" REINFORCED CONCRETE WALLS. FOOTINGS: MINIMUM 2'-0" WIDE x 1'-0" DEEP WITH KEYWAY WITH TWO #5 RE-BARS, CONTINUOUS REINFORCING: 3 #5 REBAR CONTINUOUS AT TOP AND BOTTOM OF WALL. FOOTINGS SHALL BEAR ON UNDISTURBED INORGANIC SUBSOIL EXISTING ANCHOR BOLTS AT STUD FRAMING. HAVING A MINIMUM BEARING CAPACITY OF 4000 PSF. UNEXCAVATED AREA TO REMAIN. PERIMETER FOUNDATION INSULATION: R-12 RIGID FOAM INSULATION BOARD. NOTE: AT INTERIOR OF FOUNDATION WALL, FULL HEIGHT. ALL CONCRETE SHALL BE PLANT MIXED, PROPORTIONED TO PRODUCE 3000 PSI MINIMUM COMPRESSION STRENGTH AT 28 DAYS. EXISTING CONCRETE FOUNDATION WALLS TO REMAIN. ELEVATOR PIT: ELEVATOR SHAFT ENCLOSURE COLUMN FOOTINGS MUST BE 2 HOUR FIRE RATED AT ENTRY CANOPY. CONSTRUCTION: CONCRETE FOUNDATION WALLS AT ELEVATOR PIT. ELEVATOR PIT DETAILS BY ELEVATOR MANUFACTURER. FIRST FLOOR FRAMING: NEW FLOOR FRAMING AT FIRST FLOOR. 2"x10" JOISTS AT 16" ON CENTER STAIR ENCLOSURE: ON BEAMS AND BEARING WALLS. BEAM: DOUBLED 1-3/4" x 9-1/2" MICROLAM LVL CELLAR STAIR ENCLOSURE MUST BE I HOUR FIRE RATED FLUSH FRAMED. CONSTRUCTION: CONCRETE FOUNDATION WALLS AND 3/4" PLYWOOD FLOOR SHEATHING. FINISHED FLOOR HEIGHT TO MATCH EXISTING. EXISTING STONE FOUNDATION. FIRE RATED DOOR AT ENCLOSURE. 0 0 EXISTING STONE MASONRY EXISTING BULKHEAD, NEW MASONRY OPENING STEPS, AND AREAWAY AT EXISTING STONE FOUNDATION TO REMAIN. TO BE REMOVED. AT NEW STAIRWAY. NEW THICKENED SLAB FOOTING AT INTERMEDIATE COLUMNS. UNEXCAVATED AREA TO REMAIN. EXISTING NEW CONCRETE SLAB ON GRADE AND EXISTING STONE MASONRY FOUNDATION WALLS THICKENED SLAB FOOTINGS STONE MASONRY AT EXISTING CELLAR. FOUNDATION WALLS TO REMAIN. TO REMAIN. BA/EMENT FLOOR PLAN FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

JECTION DETAIL SCALE: 1/4" = 1'-0"

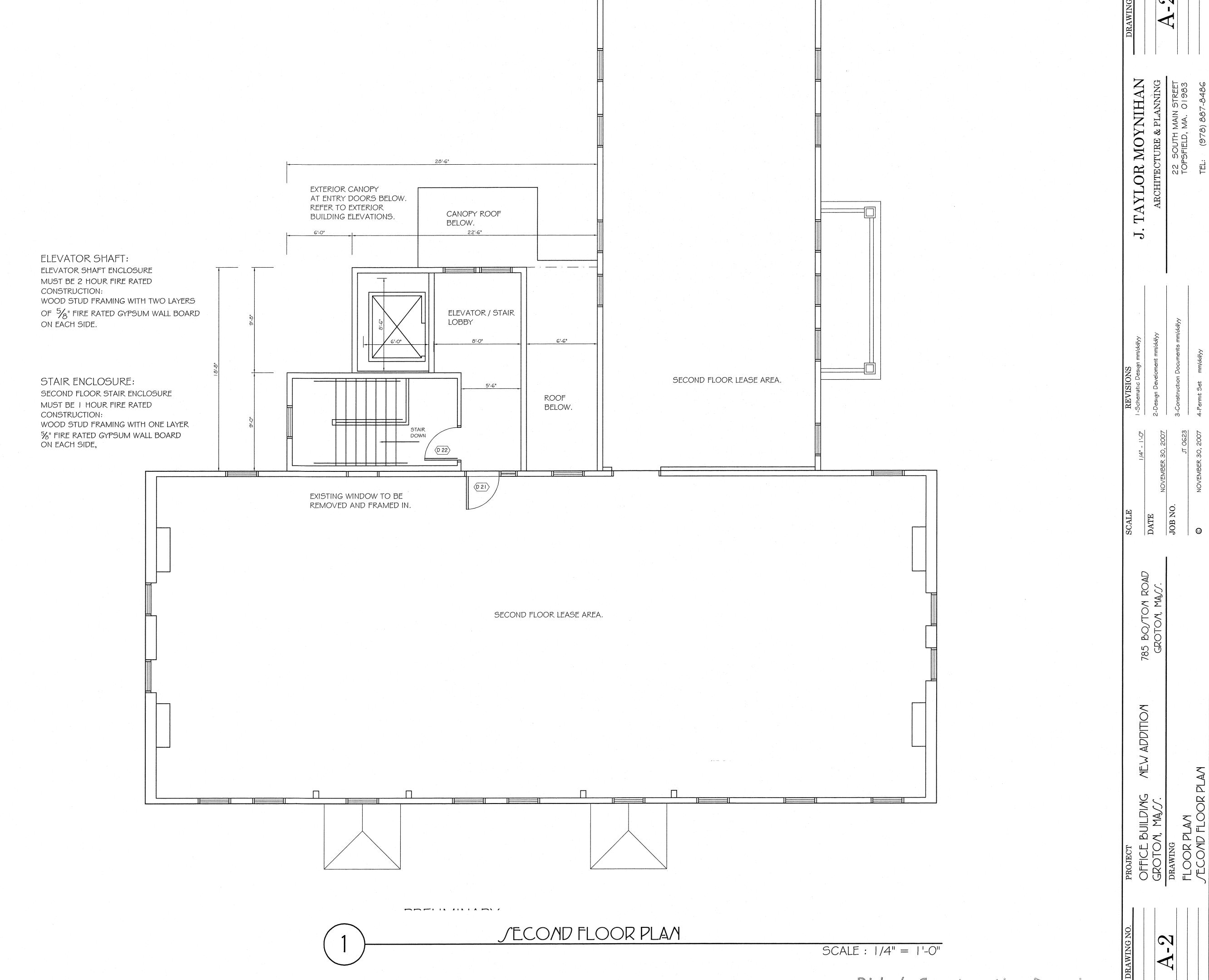
Bid / Construction Drawings

TAYLOR MOYNIHAN
ARCHITECTURE & PLANNING

785 BO/TON ROAD GROTON, MA//.

ADDITION

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Bid / Construction Drawings



SCALE: 1/4" = 1'-0"